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THE

NATURAL HISTORY

OF

THE HUMAN SPECIES

BY

LIEUT. COL. CHAS HAMILTON SMITH K.H.

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THE

NATURAL HISTORY

OF

THE HUMAN SPECIES:

ITS

TYPICAL FORMS, PRIMEVAL DISTRIBUTION,
FILIATIONS, AND MIGRATIONS.

ILLUSTRATED BY NUMEROUS ENGRAVINGS.

BY

LIEUT.-COL. CHAS. HAMILTON SMITH,

PRESIDENT OF THE DEVON AND CORNWALL NAT. HIST. SOCIETY, ETC. ETC.

WITH A PRELIMINARY ABSTRACT OF THE VIEWS OF BLUMENBACH, PRICHARD, BACHMAN, AGASSIZ, AND OTHER AUTHORS OF REPUTE ON THE SUBJECT.

BY S. KNEELAND, JR., M. D.

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After the anxious and ardent study of two years, the talented author of the following pages has reduced to a lasting form the labors, original observations, and pictorial illustrations, collected during his long and valuable life, upon this important history, in which he has, with such praiseworthy industry, treasured up the interesting facts and reasonings in this volume — very much condensed it is true, but yet exhibiting such a view of the subject as, we trust, cannot fail of being both interesting, instructive and popular.

We embrace this opportunity to give an extract of a letter just received from himself respecting a Preface to the volume, not being willing to lose any details which may fall from so valuable a source.

"As for a Preface, I see nothing required, unless it was thought proper to state what I had said in the concluding

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paragraph respecting my predecessors, whose details I did not think it my mission to repeat, particularly as the confined space allowed me was not even sufficient to fully explain the statements I had to make and comment upon. This fact is abundantly exemplified in the short abstracts I have been compelled to give of the European Caucasians, whose intermixtures, by well known migrations from the north to the south, might have been given, with details full of interest; particularly as, by the means of the Gothic invasions, all the new elements were brought into existence, which, when leavened by Christianity and the antique schools of civilization, brought forth the present progressive development. Experiment, fact, and inductive fact, are the basis of knowledge, and stand in perpetual contradistinction to the authority and dicta of antiquity, usually without foundations. In the work before us, it is true that much rests necessarily upon induction; but when we have antecedents and succedents, the intermediate cannot be said to be conjecture; it is an approximation to positive fact, from actual necessity. This is the line of arguing which I would take up if a preface be necessary."

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EXPLANATION OF THE PLATES.

PLATE I.

Beginning with the most aberrant forms, we have the American, whereof the Aturian Palta or Titicaca Flatheads form the type. It is so distinct, that its having a common origin with the forms of the Old Continent is not satisfactorily established, since the oblique-headed Peruvian and the depressed-headed Chinook are mere artificial imitations of the typical head. That this is not itself the result of contrivance, is exemplified in the figure of a Titicaca child's head of perhaps the fifth year, which is greatly prolonged, yet less so than another in positive infancy. Both have the orbits more solid than heads of the same age on the eastern continent, and the older of the two presents the additional bone (os incæ) at the back of the head. The oblique-headed Peruvian shows its resemblance to Asiatic figures to be noticed in the sequel.

PLATE II.

Offers specimens of the woolly-haired type, the vertical view of a Negro's skull, pointing out the small breadth compared to the depth, and the projection of the face approaching the Titicaca form. Both have the

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frontal bone carried high up the dome, though not in the same degree. There is no very striking difference between the skulls of the west and east coast of Africa. Those of Oriental Negroes, and even of Horafouros, who are not an unmixed race, have the same typical structure, though more debased ; the Tasmanian being the lowest, with perhaps the exception of the Bushman.

PLATE III.

Of the beardless type, may be observed the shorter and more quadrangular cranial form, with still more facial protrusion ; and, in the most northern partially mixed races, the very contracted occiput is remarkable.

PLATE IV.

Shows the regular oval form of the most intellectual type : more breadth of forehead ; prolonged expansion backwards, and nearly vertical facial angle. The regular dome, as seen in the finest races of mankind — ancient Egyptians, Hebrews, Greeks, Circassians, and Arabs. In most European, a slight modification from a Finnic source may be traced.

PLATE V.

Proves the typical identity of the Oriental Negro with those of Mozambique and Guinea.

PLATE VI. — *Figs.* 1 and 2.

Exhibits profiles of Indo-Chinese, or the sub-type of what we take to be the Malay races, where, in the vertical profile of one, we have a Caucasian predominance, in the other more Papua blood, both in some degree partaking of the Negro coloring, but with the hard, black straight hair of a Mongolic intermixture. In the Australasian Islands, many customs remain, which attest that a portion of the American people derives its

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origin from them: for, among their paintings and carved work, representing gods and heroes, we see personages dancing with human heads slung to the waist, like modern Dyaks; we observe ensigns of feathers, stuck in sheaths at the back, like the Malays of Java; and masks, tomahawks, shields, sword handles, and spears adorned, in a similar manner, with human hair and tufts of feathers. We refer to the figures in Captain Keppel's voyage, and in the late Dutch publications on their Indian possessions.

Figs. 3 and 4.

The character of lank hair is universal in the beardless races, and the presence of Caucasian blood scarcely marked by a somewhat more ruddy complexion, and slight beard in the Mongol and Eleuth.

PLATE VII. — *Fig.* 1.

Exemplifies an abnormal family of tribes. We figure a Bushman, once a private soldier in the Cape Rifles, like all the Hottentot nations, known by the pale yellow color. From drawings of Captain Nelson, R. E.

Fig. 2.

Cafuse Brazilian; hybrid between Negro and Cayopa tribe of Indian blood. At Cape Gardafui, in Eastern Africa, an Arab intermixture produces the same external aspect in the Jamaule Negroes. It occurs again among the Mekran Ethiops, and among the Malay Papuas of the Indian Ocean.

PLATE VIII. — *Fig.* 1.

Te-Kewiti, a New Zealand chief, showing, in conduct, reasoning, and person, high Caucasian development.

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Fig. 2.

North American Indian ; from the Travels of Prince Maximilian of Wied.

PLATE IX. — *Fig.* 1.

Cluche Indian : a tribe bordering on the Rocky Mountains, strongly marked with Mongolic characters. He was sketched at New York.

Fig. 2.

Portrait of a Mongolic race : the Nogai Tahtar bearing the characteristics of his type very strongly.

PLATE X.

The Black Kalmuck most strongly marked with the Mongolic character ; and a Japanese prize-fighter, with broad but receding forehead.

PLATE XI. — *Fig.* 1.

Portrait of Mohammed II., showing the Turkish Ouralian character, before the race was as yet much intermixed with Circassian and Greek blood.

Fig. 2.

The forehead of the Sarmatian noble is the maximum instance of external mental development. It is the same character that distinguishes the portraits of Wallenstein and other Bohemian and Polish heads.

VIGNETTE.

Blackfoot Indian, taken from Prince Maximilian of Wied's magnificent Atlas of Plates, illustrative of the North American Indian Tribes and Scenery.

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INTRODUCTION.

THE subject of the "Natural History of Man" has become one of the most exciting topics of the day, both from its intrinsic interest and importance, and from the various bearings which have been given to it by sectarians, philanthropists, and savans. It is not a question of one side only, as many take for granted, nor has it become two-sided within the last few years. As long ago as the appearance of the work of Lawrence, scientific men maintained conflicting opinions on the original seats and characteristics of the human races; and the great advances now made in zoology, comparative anatomy, history, geography, philology, &c., have added new arguments to both sides of the question, and rendered a satisfactory decision an exceedingly difficult matter.

Dr. Prichard may be considered as the best expounder of the theory of the original *unity* of the human *race*. The author to whose work this chapter is introductory, adopts the side of the question to which Prof. Agassiz, Van Amringe, Dr. S. G. Morton, and others, give their sanction, in variously modified forms. The arguments of authors on both sides will be given as impartially as we are able to do it, and as fully as space will permit; so that the reader may form his own opinion. A sketch of the views of those who are not committed to either side will also be added, so that information from all sources may aid in the formation of a just opinion.

LAWRENCE, following the classification of Blumenbach, divides Man into *five* varieties, viz., the *Caucasian*, the *Mongolian*, the *Ethiopian*, the *American*, and the *Malay;* with the following characters:

1. The Caucasian variety (to which we belong) is so named, from Mt. Caucasus, as in its neighborhood is found the supposed *typical* race of the Circassians and Georgians. It includes the following nations, ancient and modern—the Assyrians, Medes, Persians, Jews, Egyptians, Chaldeans, Georgians, Circassians, Armenians, Turks, Arabs, Syrians, Afghans, Hindoos of high caste, Moors of Northern

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Africa, Greeks and Romans, the nations of modern Europe, (except the Laplanders,) and their descendants in this hemisphere; in fine, those races in which intellect, both native and cultivated, has produced the mightiest results; those races, whose history would be the history of civilization and of Christianity; and, in the opinion of many, the only race referred to in the Mosaic account of creation.

The color of the skin, in this variety, is *white;* to this exclusively belongs the soft-spreading *blush*, the faithful index of the heart, which a European writer has erroneously made a moral as well as a physical difference between the races; to this race belongs redness of the cheeks. The hair varies in color from black to flaxen, is soft in quality and abundant. The color of the eyes generally follows that of the skin and hair, depending, as it does, on the amount of coloring matter which is usually distributed equally in these different parts.

The face is small, oval, and almost perpendicular; the features distinct; the forehead lofty and broad; the nose narrow and rather aquiline; the mouth small; the lips thin and slightly turned out; the front teeth in both jaws perpendicular; the chin full and rounded. This is the face which agrees best with our ideas of beauty, being the happy mean between the laterally expanded face of the Mongolian and the lengthened face of the Negro.

Of the facial angle, and the norma verticalis of Blumenbach, we shall defer the description till we give Dr. Prichard's views, that the reader may not be wearied by too much repetition. Though the facial angle is of little value in individual skulls, yet, in comparisons of the races, it may give a very good idea of their intellectual power. Those animals which have the longest snouts are always considered the most stupid and gluttonous. When we descend to reptiles and fishes, the jaws seem to constitute almost all the head, and these are the most voracious of animals; they appear to live only to eat. On the other hand, a great degree of intelligence is attributed to the elephant from his well-marked forehead; and the solemn owl is made the companion of the goddess of wisdom, for a similar appearance; but these *semblances* do not depend on any greater development of the brain. Intelligent Man, whose animal propensities are subordinate, has a *cranium* much larger than his *face;* even among *men*, we instinctively regard him as stupid and sensual, whose face is very prominent and whose forehead is receding; the advancement of the forehead towards the line of the face is always understood by artists as representing the noble and elevated character. As we descend in the animal scale we find the face increasing at the expense of the cranium.

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In the Caucasian race the facial angle is from 80° to 85°; thence it decreases in the other varieties of Man as low as 65°, in the normal condition; in many of the ancient statues the facial angle is 90°, and in one even 100°, which last never existed in nature except in disease. In children the forehead is more prominent than in the adult, being usually 90°; thus is explained their almost uniformly pleasing countenances, and also the diminution of their beauty as age advances. The Caucasian race, whether we judge it by the facial angle, the norma verticalis, or the basal view of Mr. Owen, is placed above the other races.

Three great divisions are recognized in the Caucasian race. The *Celtic* division, comprising the present inhabitants of Western Europe, (except the English,) and the ancient Britons, Welch, rish, and Scotch. The *Germanic* division, comprising Germans, ancient and modern, Danes, Swedes, Norwegians, Saxons, and English, and the inhabitants of the Netherlands and Iceland. The *Sclavonic* division, comprising the Russians, Poles, Bohemians, Cossacks, the inhabitants of part of Western Asia and Northern Africa.

2. The *Mongolian* race seems to have originated from the central plains of Asia, whence they are supposed to have wandered in all directions, into the northern parts of Europe and America, and perhaps into the southern parts of Africa. It comprises, according to Lawrence, the Mongols, Kalmucks, Koreans, Chinese, Japanese; the inhabitants of Thibet, Tonquin, Siam, Cochin China, the Himalaya Mountains, Hindostan, Ceylon; the Kamschatdales, Asiatic Russians, Finns and Laplanders, and the Esquimaux of Arctic America. The ancient Huns belonged to this variety; these, with Attila at their head, penetrated to the very centre of Europe; the famous Zenghis Khan and Tamerlane belonged to this race, which has always been nomadic and predatory.

The color of the Mongolian skin is olive yellow; the eyes dark, the hair black, straight, and thin; with very little if any beard, eyebrows, or eye-lashes; the face is broad and flattened; the features not very distinct; the space between the eyes broad and flat; the orbits large and open; the nose flattened; the cheeks high and prominent; the opening of the eye-lids narrow, linear, oblique, the inner angle the lowest; chin not prominent; the ears and lips large. The forehead of the Mongolian is low and slanting, allowing a considerable portion of the face to be seen when the skull is viewed vertically from above; the facial angle is therefore less than in the Caucasian. The cranium is narrower, and the face broader, so that

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the head has somewhat of a pyramidal form. The stature is inferior to the Caucasian.

In intellectual and moral characters it is certainly inferior to the white race. The Chinese and Japanese have made considerable advancement in the arts of civilization, and their institutions date back to a remote period; but the very fact of their having remained stationary for so many centuries proves an inferior capacity for improvement.

3. The *Ethiopian* race includes the inhabitants of Africa, (exclusive of the northern parts,) and the imported specimens and their descendants in America and elsewhere. The color of the skin varies from tawny to jet-black. The iris is black; the hair black, crispy, generally called "*woolly*," though having none of the characters of *wool*. The eyes are prominent, and the orbits large; the nose thick, flat, and confounded with the prominent cheeks; the lips very thick and everted; the jaws projecting, the chin receding; the whole face very much developed, and the skull thick and heavy.

The front of the head regarded from above the face, as well as the forehead, is compressed laterally, so that the long diameter of the head exceeds that of the other varieties. The low retreating forehead allows all the upper part of the face to be seen; the prominence of the upper jaw diminishes the facial angle to 70°, and even 65°. The cavity of the cranium is diminished, while the face is increased; the zygomatic arches are very wide, giving a large space for the elevating muscles of the lower jaw; the opening of the nose is large and transverse; the foramen for the passage of the spinal marrow, and the articulation of the head with the neck, are relatively posterior to their position in the white races, from the prolongation of the jaws forward.

A slight comparison of the Negro with the Caucasian skull suffices to show that the intellectual portion in the former is diminished, while the animal portion is increased. The low forehead and the muzzle-like elongation of the jaws give an animal aspect to the head, which cannot fail to strike an unprejudiced observer; this is increased by the large and powerful lower jaw, the ample provision for muscular insertions, and by the greater size of the cavities destined for the reception of the organs of smell and sight.

Lawrence alludes to the opinion, even then prevalent, that the Ethiopian resembles the *monkey* tribe more nearly than do the preceding varieties. The size and direction of the face, the prominence of the jaws, the flatness of the nose, the greater length of the forearm compared with the arm, the narrow and tapering fingers, render the comparison obvious. But even supposing that this race

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is the lowest type of man, it is none the less *human*, and far more separated from the highest *monkey* than the highest *man*, by the *erect* attitude, by the possession of *two hands*, by a *slower development*, by the powers of *reason* and *speech*. The anatomical structure of the spine renders it as impossible for a monkey to assume the erect posture, for any length of time, as for a man to go *on all fours*. That there were men, who were called philosophers, fools enough to maintain that the natural position of man was that of a quadruped, is thus ridiculed in Butler's Hudibras [Part 2nd, Canto 1st] : —

> "Next it appears I am no horse,
> That I can argue and discourse,
> Have but two legs, and ne'er a tail.
> Quoth she, that nothing will avail,
> For some philosophers of late here
> Write men have four legs by nature,
> And that 't is custom makes them go
> Erroneously upon two."

A French savant has recently described, before the Academy of Sciences, a tribe of Negroes in Central Africa, as furnishing the long desired connecting link between man and monkeys. According to him, there are *men* who have not been sufficiently accustomed to the sitting posture to wear off the tail, which he says projects some three or four inches. This report, which as yet is based upon the appearance of a single individual, will doubtless be explained, if there be any foundation for it in truth, by some anatomical peculiarity which can in no way be called a caudal appendage.

4. The *American* race has been traced by theorists to many nations; to the Polynesians, the Mongolians, Hindoos, Jews, and Egyptians, singly or combined. Lawrence treats of them as a distinct race, differing from the others in physical, moral, and intellectual characters. They inhabit the American continent from Cape Horn to the Arctic regions, and, with all their differences, are considered by him as one and the same race over this whole extent.

The color of the skin is brown, or cinnamon-hued; the iris dark; the hair long, black and straight; the beard scanty; the eyes are deep-seated; the nose flat, but prominent; the lips full and rounded. The face is broad, especially across the cheeks, which are prominent, but not so angular as in the Mongolian; the features are distinct. The face somewhat resembles the Mongolian, and we shall see that many writers, and among them our author, consider the Americans as transplanted Mongolians.

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The general shape of the head is square; the forehead low, but broad; the back of the head flattened; the top elevated; the face much developed; the orbitar and nasal cavities large, indicating, according to some, a corresponding acuteness of sight and smell; the jaws are very strong.

Their curious modes of deforming the skull will be better described when speaking of Dr. S. G. Morton's "Crania Americana." He maintains that the ancient skulls from Peru, from the tombs of Mexico, and from the mounds of the Mississippi and Ohio valleys, present the same characters as the existing Indian tribes; and that this race is as aboriginal to America, as is the Mongolian to Asia, or the Ethiopian to Africa.

5. The last variety mentioned by Blumenbach and Lawrence is the *Malay*, inhabiting the Asiatic and Polynesian Islands.

The color of the skin in the true Malay is light brown, or tawny; sometimes, as in the Tahitians, very light. The hair is black, long, soft and abundant, — in the Tahitians almost yellow; thick beards are not uncommon. The eyes are moderately separated; the nose prominent, but broad and thickest at the end; in the words of Lawrence they are "bottle-nosed;" the mouth is large, the lips thick; the face broad and largely developed; the jaws prominent; the forehead low and slanting. It is truly an amphibious race, and its home may be said to be on the water; its extended migrations by sea have been traced, as Dr. Pickering maintains, even to the western coast of North America.

Those who believe in the origin of mankind from a single pair must, of course, account for the changes man has undergone since Adam.

Climate has been generally brought forward to explain the differences in color, and even the varieties of form. Blumenbach gives three arguments, of which Lawrence,* who quotes them in his work, says, "That so able a writer could find no better proofs in support of his opinion, only shows how completely unfounded that opinion is." After many examples, Lawrence gives the following conclusions: That the differences of the human races are analogous in kind and degree to those of the breeds of the domestic animals, and must be accounted for on the same principles. That they are first produced in both instances as native or congenital varieties, and then transmitted to the offspring. That the state of domestication is the most powerful predisposing cause of varieties in the animal kingdom.

* Lectures on the Natural History of Man: by William Lawrence, F. R. S. 12th Edition. London, 1844.

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That climate, situation, food, mode of life, have considerable effect in altering the constitution of man and animals; but that this effect is confined to the individual, is not transmitted by generation, and therefore does not affect the race. That the human species, like that of the cow, sheep, horse, and pig, is single; and that all the differences which it exhibits are to be regarded merely as varieties.

Dr. Prichard, the most zealous and learned advocate of the unity of the human race, commences his second section* as follows: "The Sacred Scriptures, whose testimony is received by all men of unclouded minds with implicit and reverential assent, declare that it pleased the Almighty Creator to make of one blood all the nations of the earth, and that all mankind are the offspring of common parents. But there are writers in the present day who maintain that this assertion does not comprehend the uncivilized inhabitants of remote regions; and that Negroes, Hottentots, Esquimaux, and Australians, are not, in fact, men in the full sense of that term, or beings endowed with like mental faculties as ourselves." These half-brutes, half-men, do not belong to what Bory de Saint Vincent calls the "Race Adamique;" they were created to be the slaves of the superior races; and are capable of improvement to an extent comparable to that attained by dogs or horses. Such men think it the extreme of folly for England to have recently emancipated from West Indian slavery a tribe of Negroes, exactly in the situation for which nature designed them. There are not a few in this country who cherish, if they do not express, a similar opinion. But in matters of scientific inquiry, all considerations, not bearing on the immediate facts in the case, must be set aside; the maxim to follow is "fiat justitia, ruat cœlum." "In fact, what is actually true it is always most desirable to know, whatever consequences may arise from its admission."

As the signification of the word "species" has been variously understood, he defines species as "simply tribes of plants or of animals which are certainly known, or may be inferred, on satisfactory grounds, to have descended from the same stocks, or from parentages precisely similar, and in no way distinguished from each other." The principal object of his work is to point out the most important diversities by which the genus Man is separated into

* The Natural History of Man: by James Cowles Prichard, M. D. London, 1848.

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different races, and to determine if these races are separate species, or merely varieties of one species. Permanent varieties, if we allow the existence of such tribes, come very near species, and may be defined as "races now displaying characteristic peculiarities which are constantly and permanently transmitted;" differing from species in that the peculiarities are not coeval with the tribe, but have arisen since the commencement of its existence: it is not unlikely that many so called distinct species of animals and plants are in reality only permanent varieties.

It has been laid down as a law of nature, that, in order to prevent inextricable confusion in the vegetable and animal kingdoms, the offspring of different species, or hybrids, are incapable of reproducing their kind, thus making hybridity a test of specific character. This has been denied by many naturalists, among others by Dr. S. G. Morton, of Philadelphia, whose views will be given hereafter. According to Wagner, hybrid plants are very rarely produced in a state of nature; they are very seldom fruitful among themselves; those holding intermediate places between the parent plants are absolutely barren, while those which nearly resemble one or the other parent are occasionally propagated; and plants from different varieties of the same species are altogether fertile, while hybrids either return to the original character, or become gradually less capable of reproduction, and in a short time extinct. So, in animals, mules or hybrids are produced among domesticated tribes; but, except in a few tribes of birds, they are unknown in a state of nature. A new breed cannot be perpetuated from them, and their offspring can only be continued by returning to one of the parent tribes. Wagner believes that nature has established the sterility of hybrid animals by an organic impediment.

If these results are true, we are forced to the conclusion that the different races of men must be either incapable of mixing their stock, and must ever be separate from each other, or that these races belong to the same species.

It is a fact that the most dissimilar varieties of man are capable of propagating prolific offspring with each other. The Mulattoes, from the mixture of the Negroes with Whites, are said to be increasing in numbers, as well as the mixed race of the Creoles and the Negroes. The Griqua Hottentots, descended from the Dutch colonists of South Africa on one side, and from the aboriginal Hottentots on the other, are a numerous and rapidly increasing race. The Cafusos of Brazil, so remarkable for their monstrous heads of hair, are known to have descended from the native Americans, mixed with the imported Africans. The Papuas, with equally remarkable hair,

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are a mixture of the Malay with the Negro in New Guinea and the neighboring islands; according to Lesson, most of them are a frail and feeble race. We hence derive conclusive proof, unless there be in the human races an exception to this admitted law of nature, that all the tribes of men belong to one species and family.

If we could compare our breeds of domestic animals with their original wild stocks, we could easily ascertain the limits of variation in these breeds; but the wild originals cannot now be recognized. However, in the animals known to have been imported into America from Europe since the fifteenth century, we have an abundance of materials for interesting observations; these animals have greatly multiplied, and many, running wild in the forests, have lost all appearances of domestication; the wild tribes are physically different from their tame originals, and there is reason to believe that the change is in the direction of the wild stocks from which the tame animals originated.

The hogs of the forest very nearly resemble the wild boar; their ears have become erect; their color has changed to black; instead of hair and bristles, their skin is covered with thick, often crisp fur, under which is sometimes a species of wool; their heads become larger; indeed, they are returning gradually to the appearance of the wild boar of Europe. The difference between the skulls of the domestic hog and the wild boar is as great as that between the European and the Negro skull. The horse, the ass, the cow, the sheep, the goat, the dog, and gallinaceous fowls, show similar changes, and a tendency to return to the primitive wild type. Even the functions of animal life may be greatly changed in a few generations. It is not natural for the cow, any more than for other female animals, to yield milk when she has no young to nourish; the permanent production of milk is a modified animal function, produced by an artificial habit for several generations. In Columbia, the practice of milking cows having been laid aside, the natural state of the function has been restored; the secretion of milk continues only during the suckling of the calf, and is only an occasional phenomenon. Says Roulin, "If the calf dies, the milk ceases to flow, and it is only by keeping him with his dam by day that an opportunity of obtaining milk from cows by night can be found." The horses on the table land of the Cordilleras are taught very early a sort of running amble, quite different from their natural gait; these horses become the sires of a race to which the ambling pace is natural, and requires no teaching. The dogs employed in hunting the peccary are taught the peculiar way necessary to take this animal; their offspring inherit as an instinct the lesson of their fathers, and

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on the first chase knew how to attack the peccary, while an ordinary dog is instantly killed by them. The barking of dogs is an acquired hereditary instinct, supposed to have originated in an attempt to imitate the human voice; wild dogs, and domestic breeds become wild, never bark, but howl. Cats, which so disturb civilized communities by their midnight "caterwaul," in the wild state in South America are quite silent.

These well-authenticated facts show to what extent a change of external conditions may modify races of animals. Similar changes may be found among our domesticated breeds. For instance, the breeds of sheep differ greatly in different countries; but it is maintained that they all are varieties of one species. New breeds of sheep are frequently formed, (and very much as the breeder wishes,) by crossing well-known races, or individuals having the peculiarities which it is desired should be transmitted to the new breed. In the same manner, he says, the numerous varieties of horses are without doubt members of but one species; Blumenbach has remarked that there is more difference between the skulls of the Neapolitan and Hungarian breeds of horses, than between the skulls of the most dissimilar forms of mankind. Some naturalists suppose the dog to belong to the same species as the wolf; others derive him from the jackal. With all their varieties, Frederic Cuvier believes the dogs to embrace but one species; he observes that if we make more than one species we must make at least fifty, all distinguished by permanent characters. Restored to the wild state, all these varieties approximate to the type which may be supposed to have belonged to the original species. Dogs differ in stature, in the shape of their ears and tails, in the number of caudal vertebrae; some have an additional claw on the hind foot, and an additional false molar tooth on one side; the hair differs in color, texture and length, according to the climate in the first instance; but these differences become permanent like the corresponding peculiarities of the human races; the varieties of the dog tribe have become *permanent varieties*.

This tendency to variation he ascribes not to accident, but a "nisus formativus," a vital power "in virtue of which organization receives a peculiar direction from external circumstances." Varieties in form and structure are found in the offspring of the same parents which are transmissible, and thus lay the foundation for different breeds; but these variations are within certain limits, and leave unaltered the specific character. It is not always easy to decide what the specific characters are, and what qualities are variable. The shape of the head furnishes the most remarkable instances of variety and of characters distinguishing races; the length

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and thickness of the neck are very characteristic of breeds of horses; Meckel remarks that the length, height, and proportional breadth of the hinder parts, the length and thickness of the tail, the shape of the pelvis, and comparative length of the limbs, are characteristic of different races. The physiological and psychological differences we have seen are equally remarkable.

Races of men are subject, more than the races of almost any animals, to the varied agencies of climate; civilization produces in them greater changes than does domestication in animals; and we ought, therefore, to expect as great diversities among men as among brutes, and indeed far greater, from the powerful influence of mind in the former.

To proceed with the variations of the human species, we are at first struck with the differences of *color*. The difference of color has generally been thought less important in the discrimination of the races than varieties in the form of the skull; but M. Flourens considers it more characteristic of distinct races than any other peculiarity. He displayed before the French Academy of Sciences four distinct layers between the outer cuticle and the cutis, viz., a cellular and reticular tissue lying immediately on the cutis; then a continuous membrane resembling mucous membrane in general; then a black pigment, hardly coherent enough to be termed a membrane; and, lastly, the interior portion of the epidermis, which he divides into two laminæ. The second of these he considers a distinct organized body, existing only in men of dark color, or, at least, he failed to detect it in the white races by the ordinary method of maceration. He was unable to find any membrane in the white races, interposed between the cutis and the inner coat of the epidermis; this last being, according to him, the seat of the discoloration of the white skin from exposure to the sun, as well as the seat of the brown color of the areola mammarum. This diversity he regards as a specific distinction, "or as marking out the Negro and European as separate species of beings."

The supposition of M. Flourens will hardly account for many discolorations of the skin which are frequent in Europeans. During pregnancy, the mammæ of many females are extensively surrounded by a dark tinge, which afterwards mostly disappears; in some individuals the dark color pervades a great part of the body; so that, independently of the solar heat, certain constitutional conditions may impart to the white skin a dark hue similar to that natural to the African race. On the other hand, instances are recorded (in Philos. Trans., vol. 57) of the disappearance of the coloring matter in Negroes, who have become as white as Europeans.

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Microscopical investigation has shown that the skin does not consist of continuous membranes, but is composed of several layers of cells not separated from each other by such definite lines. Henle has found that the apparently membranous parts, which give color to various surfaces, are also of a cellular structure, and not properly membranous; in the skin of the Negro he found numerous irregularly spherical cells containing the black pigment to which the color is due; they were most numerous on those parts of the rete which project and correspond to the furrows of the cutis. Dr. Simon, of Berlin, has found that the various discolorations of the white skin depend on the presence of similar cells filled with pigment, and that they are related on the one hand to the normal coloration of the Negro skin, and on the other to the disease termed melanosis, in which "the production of pigment cells keeps pace with a change from the normal or healthy state of organization in the affected parts."

He thence concludes that there is no organic difference between the skin of the Negro and the European, which marks them as distinct species. It may also be added that the epidermic tissue, to which the horny tissue of many animals corresponds, and which is the seat of the variations in color and in the hair of man, "is precisely that part of the organic system which undergoes the most striking and even surprising alterations." The complexions of mankind are not permanent characters; there are many changes from white to black, and vice versa, and both complexions are seen in the undoubted progeny of the same stock; so that no argument, according to Prichard, can be drawn from color against the original unity of the human species.

The human races have also been distinguished by the color, quality, and quantity of the *hair;* these national diversities probably do not exceed the measure of variety occurring in different families of the same nation. Some Europeans are said to have hair quite as crisp and curly as that of a Negro; even among Negroes, we find every variety from a so-called "woolly" hair to curled or even flowing hair; the same is affirmed of the natives of the Southern Ocean, where there is no intermixture of races. The nature of the Negro hair has been the subject of much discussion, as it was supposed to possess characters indicating a distinct species. The Negro hair is called "wool," meaning that it approaches the wool of animals. The fibre of true wool is rough on its surface, and has a feathered or barbed edge; this is at the same time the cause of its felting property, and the mark which distinguishes it from hair. Examined microscopically, the fibre of wool generally has serrated edges, resulting "from a structure resembling a series of inverted cones,

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encircling a central stem, the apex of one cone being received into the base of the superior one." Hair, though sometimes rough and covered with scales, has no serrations, or tooth-like projections; it is an even-sided tube, smooth, and nearly of equal calibre.

The hair of the dark races is not wool, but a curled and twisted hair; it has the appearance of a cylinder with a smooth surface; the coloring matter is the most abundant in the Negro hair; the Abyssinian hair, very dark, had a riband-like band running through the middle of the tube, as did also the Mulatto hair; European hair seemed almost entirely transparent, like an empty tube. Even if that of the Negro were "wool," it would not prove him a distinct species, since we know that, in some tribes of animals, some of a species bear wool, while others of the same species are covered with hair.

Since the time of Camper and Blumenbach, anatomists have attempted to classify mankind according to the shape of the skull; but hardly any two writers have agreed as to the number of the divisions and their exact limitation. One of their fundamental principles seems to be wrong, viz., that tribes resembling each other in the shape of their skulls must needs be more nearly related to each other than to tribes having a differently formed head. As similar causes may have produced similar effects on widely different people, any particular anatomical character so produced can afford no proof of near relationship. If there be any such relation between the physical characters of different tribes and the chief circumstances of their external condition, there may be pointed out *three* principal varieties, which are prevalent in the savage or hunting tribes, in the nomadic or wandering races, and in the civilized divisions of mankind. Among savages and hunters, among whom are the lowest Africans and Australians, the jaws are prolonged forwards, constituting the *prognathous* form of the head; among the wandering Mongolians, we have broad, lozenge-shaped faces, and the *pyramidal* skull; while the civilized races have the *oval* or *elliptical* skull. There are numerous instances of transition from one of these forms to another, when a nation has changed its manner of life; for instance, the nomadic Turks of Central Asia have a strongly marked pyramidal skull, while their civilized brethren of the Ottoman Empire have the European or oval form. The three principal ways of viewing the skull are laterally, vertically, and from below; these three combined enable us to form an idea of all its characters.

Camper says, "The basis on which the distinction of nations is founded, may be displayed by two straight lines; one of which is to be drawn through the meatus auditorius, or opening of the ear, to the base of the nose, and the other touching the prominent centre of the

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forehead, and falling thence on the most advancing part of the upper jawbone, the head being viewed in profile." This gives the *facial angle*. For the posterior part of the skull, the occipital angle may be measured in a similar manner. Though these measurements may be sufficient for the physiognomist, they are not for the geometrician, on account of the varying thickness of the skull, the development of the cavities in the forehead, frontal sinuses, and the different projection of the teeth, even in adults; and, moreover, they only measure the skull in one part. To obviate this, Cuvier proposed to compare the areas of the cranium and face sawed vertically from before backwards; the section of the face is triangular; that of the cranium an oval. In the Caucasian the area of the cranium is four times that of the face; in the Negro the area of the face is one fifth larger.

To measure the breadth of the skull and the projection of the face, Blumenbach proposed the "norma verticalis." Says he, "The best way of obtaining this end is to place a series of skulls, with the cheek-bones on the same horizontal line, resting on the lower jaws; and then, viewing them from behind, and fixing the eye on the vertex of each, to mark all the varieties in the shape of parts that contribute most to the national character, whether they consist in the direction of the maxillary and malar bones, in the breadth or narrowness of the oval figure presented by the vertex, or in the flattened or vaulted form of the frontal bone." Thus compared, he makes three varieties in the vertical view, strongly distinguished from each other; the Caucasian, Mongolian, and Ethiopian.

In no view does the human skull contrast more strongly with that of the quadrumana, than when its base is examined, as suggested by Mr. Owen. In the orang the antero-posterior diameter of the base is much longer than in man; the zygomatic arches are situated also quite differently. In all races of men, even in idiots, the whole zygoma is included in the anterior half of the basis cranii, while in the highest monkey it is placed in the middle region of the skull, and occupies about one third of the entire long diameter. The occipital foramen in all the lower animals is further back than in the human head; in man this foramen is "immediately behind a transverse line dividing the basis cranii into two equal parts, or bisecting the antero-posterior diameter." It is situated exactly alike in all human races, if due allowance be made for the protuberance of the jaws in the lower types.

In well-formed European heads, lines drawn from the zygomatic arches, touching the temples, and meeting over the forehead, are parallel. But in the pyramidal skull, characterized by great lateral

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projection of these arches, these two lines form with the basis a triangular figure. Another characteristic in the face belonging to the pyramidal skull, is the obliquity of the aperture of the eyelids; this is not due to any want of parallelism in the orbits, but to the structure of the lids; the skin being tightly drawn over the prominent malar bones at the outer angle of the eyes, and smoothly drawn over the low nasal bones, gives to the eye the appearance of having the inner angle directed downwards. The pyramidal and prognathous skulls being adapted to the nomadic and hunter state, if "either of these were the original condition of mankind, then were the first men probably in form like the Esquimaux or the Negro."

The stature, relative size of the limbs and trunk, and the proportions of different parts of the body, vary much in the different races of men; these differences have been considered by some as amounting to *specific* distinctions. One of the principal of these differences is found in the *pelvis*. Vrolik says it is difficult to separate from the female Negro pelvis the idea of degradation, so much does it approach the form in the Simiæ in the vertical direction of the ossa ilii and its elongated shape; he considers the Hottentot pelvis as indicating greater "animality in comparison even with the Negro." Weber has reduced the forms of the human pelvis to four, the *oval*, most frequent in Europeans; the *round*, most frequent in the American nations; the *square*, in people resembling the Mongolians; and the *oblong*, or *wedge-shaped*, most common in the nations of Africa. He thinks these answer to the corresponding form of the skull in the several nations. Prichard thinks that no particular figure is a permanent characteristic of any one race.

As to other parts of the skeleton, in some particulars the less civilized races bear some remote resemblance to the lower animals. Uncivilized men, like uncivilized breeds of animals, have lean, slender, and elongated limbs. These he considers as mere variations, as the same causes which produce them in individuals might influence a whole race. In the Negro the bones of the leg are bent outwards and forwards; the calves of the legs are very high; the feet are flat, and the os calcis is continued in a straight line with the other bones of the foot, and is more prominent behind; the length of the forearm is also relatively greater; but these differences are said to be no greater than are observed every day in individuals of any race. Prichard divides the human races principally according to the relations of their languages, which of all endowments "seem to be the most permanently retained, and can be shown in many cases to have survived even very considerable changes in physical and moral characters." The system adopted by Cuvier referred the original seats

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of the human race to certain lofty mountain chains. The birth-place of the men who peopled Europe and Western Asia is supposed to have been Mount Caucasus; hence the term "Caucasian" as applied to them. The nations of Eastern Asia were derived from the neighborhood of Mount Altai; and the African Negroes from the southern face of the chain of Mount Atlas. The tradition in the Hebrew Scriptures places the birth-place of mankind on the banks of four great rivers, two of which have been recognized as the Tigris and Euphrates, in a land rich in animal and vegetable productions. Prichard recognizes three great centres of the earliest civilization of the human race, comprising most of the tribes known to antiquity. "In one of these, the Semitic or Syro-Arabian nations exchanged the simple habits of wandering shepherds for the splendor and luxury of Nineveh and Babylon. In a second, the Indo-European or Japetic people brought to perfection the most elaborate of human dialects, destined to become, in after times and under different modifications, the mother tongue of the nations of Europe. In a third, the land of Ham, watered by the Nile, were invented hieroglyphical literature and the arts, in which Egypt far surpassed all the rest of the world in the earlier ages of history."

These three divisions do not correspond to the three departments of mankind as indicated by the form of the skull; the former were neither nomades nor savages, but were more or less civilized and had the corresponding oval form of skull. Yet he would trace a gradual deviation from this type to the lower, *e. g.*, from the Egyptian to the Negro, without any decided interruption; though he admits "that these approximations require further inquiry and more precise proofs before they can be admitted as furnishing the groundwork of an ethnological system."

His Syro-Arabian or Semitic race includes the Syrians, the Jews, the Arabs. According to Baron Larrey, the Arabian race furnishes the most perfect type of the human head, and he believes "that the cradle of the human family is to be found in the country of this race."

The Egyptian or Hamitic race contrasts strongly with the Semitic, the latter being full of energy and restless activity, the former living in luxurious ease on the rich soil watered by the Nile. They are equally different in their intellectual and moral characters; the one still living in its energetic and ever-roving descendants, the other reposing in its own land, which is little else than a vast sepulchre. According to Denon, the Egyptians display the "genuine African character, of which the Negro is the exaggerated and extreme representation." Some have called the Egyptians Negroes;

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others think them Caucasians; Prichard coïncides with Denon, as above quoted. More respecting this race will be given when speaking of Dr. Morton's Crania Egyptiaca.

The Indo-European, Japetic, or Arian race, includes the Hindoos, Persians, Afghans, Balúchi and Brahúi, the Kurds, the Armenians, and the Ossetines. It comprises also the numerous and far-spread colonies of the race in Europe and America. Prichard believes that the Arian race, on their arrival in Europe, found the country already occupied by what he terms "Allophylian" nations; for instance, the Celts found Spain inhabited by the Iberian tribes, who preserved the possession of the Pyrenean chain at the era of the Roman conquest, and whose descendants, even now, are found there in the Basque mountaineers, or Biscayans, (according to Humboldt); so the Northmen found the countries on the Baltic coast occupied by nations of the Finnish or Ugrian race, of the same eastern origin as themselves, but emigrants of an earlier age.

The five great Nomadic races inhabit the great central region of High Asia, and belong to the Mongolian division of authors; they are all characterized by the pyramidal form of the skull.

These five races are, the *Ugrian* race, in the north-west, of which the Finns and Lappes, the Tschudes, the Ugrians, (whence the name Ogre, the prototype of fabled savage monsters,) the Ostiaks of the Obi, (from whom are descended the Magyars, or Hungarians of central Europe,) and other Siberian tribes, are varieties.

The *Turkish* race, often erroneously called Tartars, formerly occupied all the countries from the north of China to Mount Altai. The present Turkish nations display two different types of countenance; the Nomadic tribes, in the ancient abodes of the race, display strongly the Mongolian type, while the Turks of the Ottoman empire have very nearly the European form. Some writers have explained this change by an intermixture of races, which Prichard thinks is contradicted by the evidence of their languages.

The *Mongolian* race, including the Kalmuks, strongly displays the broad face and pyramidal skull of this division of the human family. The *Tungusians* wander over the mountainous regions which extend from Lake Baikal to the Sea of Okhotsk; within the Chinese dominions they are called Mantschu. According to Klaproth, the languages of the Tungusians, Mongolians, and Turks have a remarkable connection between them; and the Mantschu, in particular, corresponds singularly in its vocabulary with other Asiatic, and still more with European, languages. The *Bhotiyahs* are a race often termed Tartars, inhabiting a great part of Tibet and the Himalayan chain. They are Buddhist, and have peculiar mar-

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riage customs; one woman is generally the wife of a whole family of brothers; this appears "less injurious in a physical point of view than the more frequent sort of polygamy." A vast amount of literature is preserved in their language in the monasteries of Tibet.

To the nations with pyramidal skulls belong the races bordering on the Arctic Ocean, which are styled Ichthyophagi, or Fishing Tribes, which sufficiently describes their habits of life. They include the Namollos of the north-east of Asia and the Aleutian islands, akin to the Esquimaux of America, the Koriaks, the Kamtschatkans, the Yukagiri of Eastern Siberia, the Samoiedes, and the Kurilians. To this division also belong the Koreans, the Chinese, and the Japanese; the races of the Indo-Chinese peninsula beyond the Ganges;—the aboriginal races of India distinct from the Hindoos, (who belong to the Arabian stock,) and inhabiting their present localities long before the latter passed the river Indus; viz., the Singhalese, comprising all the races of Ceylon, except the Tamulian; the Tamulians, inhabiting part of Ceylon, and the greater part of the Dekhan or Indian Peninsula, and the Parbatya, or mountain tribes of the Dekhan.

Among the "Allophylian" races, inhabiting mountains difficult of access, in the midst of regions long since conquered by the Arabian and Syro-Arabian races, may be mentioned the Caucasians, inhabiting to this day the chain of Caucasus, and successfully resisting all the attempts of the Russians to conquer them; they are mostly people of European features and form. The Iberians of the Pyrenees have been already alluded to; to these may be added the Lybians and the Berbers of the Northern Atlas, also extended to the Canary Islands, under the name of "Guanches," whose custom of embalming their dead and depositing them in catacombs reminds us of the ancient Egyptians, though the embalming process was different.

In his introductory remarks on the African races, Prichard says, "If we trace the intervening countries between Egypt and Senegambia, and carefully note the physical qualities of the inhabitants, we shall have no difficulty in recognizing almost every degree or stage of deviation successively displayed, and showing a gradual transition from the characters of the Egyptian to those of the Negro, without any broadly marked line of abrupt separation. The characteristic type of one division of the human species here passes into another, and that by almost imperceptible degrees."

The countries above Egypt are inhabited by two races, one aboriginal, or the Nubians of the Red Sea, and the other foreign, or

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the Nubians of the Nile; the color of the former, and their hair, is different from that of the Negro; they are a handsome people, of fine form and features; the latter are supposed to be the descendants of the Nobatæ, "brought fifteen centuries ago from an oasis in the western country, by Diocletian, to inhabit the valley of the Nile;" Prichard thinks they furnish an instance of the transition from the Negro to the ancient Egyptians, though he admits that the evidence is open to many sources of fallacy.

The Abyssinians, a fine, dark, but not Negro people, are interesting, as having preserved alone, "in the heart of Africa, and in the midst of Moslem and Pagan nations, its peculiar literature, and its ancient Christian Church;" it has also extensive remains of a wide-spread Judaism, and a language approaching, more nearly than any living tongue, to the pure Hebrew. Abyssinia has been overrun lately by the Galla, a barbarous people, who approach more nearly to the Negro type.

Of the black races of the interior of Africa, the principal are the Senegambian nations, viz., the Mandingos, remarkable for their industry and energy of character, and who carry on the principal traffic of northern Africa, and the Fulahs, who are supposed by some to be an offset of the Polynesian race.

The true Negro characters are most strongly displayed on the sea-coast, "which encircles the projecting region of Western Africa, to the inmost angle of the Bight at Benin;" the region which has been the centre of the slave-trade, and whose inhabitants are reduced to the lowest physical and moral degradation. One peculiarity of the African cranium is said to be that "the sphenoidal bone fails to reach the parietal bones, so that the coronal suture, instead of impinging upon the sphenoidal, as it does in most European heads, and in the human cranium in general, joins the margin of the temporal bone." This peculiarity has been given as a distinguishing mark between the orang and the chimpanzé, but it is by no means constant.

In the vast regions of South Africa, in a country analogous to the high region of Eastern Asia, we find nations which may be compared with the Nomadic Mongolian races. The Hottentots, and their oppressed descendants, the Bushmen, in the width of their orbits, and their distance from each other, in the form of the eye, the prominent cheek-bones, and the large size of the occipital foramen, resemble the Chinese and the Northern Asiatics, and even the Esquimaux.

The warlike Kafirs, to the north of the Hottentots, are said to have the high forehead and prominent nose of the European, the

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thick lips of the Negro, and the high cheek-bones of the Hottentot. Very likely they may be a mixed race.

The Mozambique tribes resemble the Kafirs, and, were it not for their black color and woolly hair, would be a handsome race. The African nations between Cape Lopez and Cape Negro are true Negroes, though some of their skulls have less than usual of the prognathous character, and more of the pyramidal form.

The nations of Africa, limited to those with woolly hair, do not agree in the form of the skull, and cannot be reduced to any particular stock or number of races.

The races of Oceanica he divides into three groups, the Malayo-Polynesian, comprising a family of nations whose near affinity has been established by Humboldt; the Pelagian Negroes, of dark complexion and crisp hair, more or less resembling African Negroes; and the Alforas, "savages of dark color, lank hair, and prognathous heads," including the natives of Australia. Great as is the physical difference between these nations, Prichard thinks there is full proof of unity of descent in the whole class, and attributes their diversities to *spontaneous* variation. This, without settling, only postpones the difficulty.

The first group contains the Malays proper, a people of short stature and slender limbs, with flat faces, and features resembling the Chinese, though their complexion is darker; the Polynesians, of whom Lesson considers the Tahitians as the type; handsome races, whose heads might be called European, were it not for the spreading out of the nostrils, and the too great thickness of the lips: and the natives of Madagascar, some of whose tribes approximate to the European character of the Polynesians.

The second group of Pelagian Negroes occupies the interior of many of the islands of the Indian Archipelago; those of the Philippine Islands inhabit the mountains, and resemble the nations of Guinea, wandering about like beasts, and supporting themselves by fruits of spontaneous growth; the natives of Van Diemen's Land, or Tasmanians, belong to this group, and have the compressed and elongated skull and prognathous jaws of the Negro.

The third group, the Alforians, inhabits the interior of New Guinea and many of the larger islands to the southward of the Indian Ocean; those of New Guinea, according to Lesson, have "flat noses, cheek-bones projecting, large eyes, prominent teeth, long and slender legs, very black and thick hair, rough and shining, without being woolly; their beards coarse and thick, and an excessive stupidity stamped upon their countenances." The tribes of the north-east of Borneo are a savage and piratical race, eating

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the flesh of their enemies. Among the inhabitants of the eastern isles, a singular custom is the necessity for every person, some time in his life, to shed human blood; and generally no person can marry till he can show the skull of a human victim. The Australians are supposed to belong to this group; they resemble, in the form of their skulls, the Tasmanians; they are a lean and half-starved race, with disproportioned size of head and limbs, if the representations taken from the atlas of M. d'Urville are correct.

The American nations show characters which are common to all, and exhibit strong proofs of a community of origin, and of very ancient relationship. As they probably existed as a separate department from the earliest ages of the world, we cannot expect to find proofs of their derivation from any tribes of the Old World. Though they have been called "Red Men," there are tribes equally red, he says, in Africa and Polynesia. Anatomists have described an American form of the skull, which he thinks incorrect, and founded on the study of a few well-marked tribes. The habits of these nations are equally different; some are hunters, some fishermen, some nomadic, others cultivators of the earth before the arrival of Europeans. The most decisive evidence of their relationship is in the characteristic structure of their languages. Says Humboldt, "In America, from the country of the Esquimaux to the banks of the Orinoko, and again, from these torrid banks to the frozen climate of the straits of Magellan, mother tongues entirely different with regard to their roots, have the same physiognomy." This remark of Humboldt has been confirmed by Mr. Gallatin, who says that all the languages of the native inhabitants of America, from the Arctic Ocean to Cape Horn, have a distinct character common to all, and differing from any of those of the other continent with which we are most familiar. Du Ponceau includes even the Esquimaux among the American languages.

Remarkable moral and social traits distinguish the American race from the races of the Old World. Dr. Martius believes that the American nations are not living in the primitive simplicity of nature, but that they are the remains of a people once in a high state of civilization and mental improvement, and now in a state of decline and degradation; this he infers from the remains of ancient institutions of government, of religion, and social refinements.

It is probable that the Mexican tribes, Toltecs and Aztecs, were one race, and that they ascended the central plain of Anahuac, in the seventh century, from countries lying to the north, by successive arrivals for a long period. These nations were highly cultivated in the arts, though their moral condition seems to have

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been very low. More of them, when speaking of Dr. Morton's Crania Americana.

Before the arrival of the Mexican foreigners, this plain was inhabited by races, some civilized and some barbarous, who have left behind them the splendid ruins of Palenque. Among these were the Tarascas, the Othomi, the Totonacs, and the Huaxtecas. The Othomi were a remarkable people, from the circumstance that, while all other known languages of America are polysyllabic, they had a monosyllabic dialect, resembling the Chinese idiom.

In the countries to the eastward of the Gulf of California, and extending northward as far as the rivers Gila and Colorado, ruins have been found in various localities, which are supposed to be the different resting places of the Aztecs in their migration towards Anahuac; the farthest vestige towards the north of this Mexican civilization is in the neighborhood of the Yaquesila, which flows into the Rio Colorado.

Among the aborigines of North America there are only two races which can be traced across the Continent, from the Pacific to the Atlantic Ocean; these are the two northern nations of the Esquimaux and the Athapascas. The Esquimaux, subsisting principally on what they obtain from the sea, are rarely found more than one hundred miles from the coast; they inhabit America, chiefly north of the 60° of north latitude, from the east coast of Greenland, in longitude 20°, to Behring's Straits, in longitude 167° west; they occupy an extent of coast of five thousand four hundred miles; they have the Mongolian cast of countenance. The Athapascas, or Chepewyans, extend from the western shore of Hudson's Bay, across the Continent to the Pacific; their southern boundary is Churchill river, which falls into Hudson's Bay; they agree in dress and manners, according to Mackenzie, with the Eastern Asiatics.

The greater part of Canada, and the United States east of the Mississippi, at the time of its discovery, was inhabited by two principal races, the Algonquin-Lenape and the Iroquois, or Hurons; both were divided into a great number of tribes, which recognized, however, their kindred with each other. The limits of the former were, in general terms, Churchill river on the North; the Atlantic coast on the east, from the mouth of the St. Lawrence to Cape Hatteras; on the south, an irregular line drawn from Cape Hatteras to the confluence of the Ohio with the Mississippi; and, on the west, the Mississippi river. The Iroquois, always at war with the former, consisted of two bodies — the northern, entirely surrounded by the Lenapian tribes, in the neighborhood of Lake Huron; the southern were the Tuscaroras, in Virginia and North Carolina.

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To the southward were the Alleghanian races, many of whom have become extinct; among them were the Cherokees, the Choctaws, the tribes of the Creek confederacy, Seminoles, Natchez, and others. These were the nations among whom Adair thought that he recognized the institutions of Judaism, such as a city of refuge, a temple where the sacred fire was continually kept burning, &c.

To the west of the Mississippi are the Sioux and Pawnees; Mr. Gallatin divides the Sioux into four departments, but all of one kindred, from the evidence of language; these are the Winebagos, the Dahcotas, the Minetari, and the Osages. There are two nations of Pawnees, the Pawnees proper, and the Ricarees on the river Platte. On the sides of the Rocky Mountains are the Black-feet and the Rapid Indians, with their numerous families; in their neighborhood are the Snake Indians; further south the Utahs and Paducas; and in New Mexico the Apaches.

The races of the Pacific coast of North America may be divided into three sections: The Californian nations inhabit a region barren, rocky, and sandy, and deficient in water, and of a climate excessively hot and dry, exactly opposite in every respect to the north-western tracts; they are of a much deeper hue than the American natives generally, so that La Pérouse compared them to Negroes; they have low foreheads, and prominent cheek-bones; they approach, in the shape of the head and in features, to the nations of New Guinea, and New Hebrides. New California appears to have a fine race of dark people.

The tribes of the North-west coast and the Columbia river, from New California to Mt. St. Elias, are very different from the hunting races of the Missouri. The prevailing westerly winds of the northern Pacific render the climate moist and milder than corresponding regions of the interior. The northern tribes, from the Arctic circle to Vancouver's Island, including the tribes of the Russian territories, are bold, industrious, and ingenious; the females have the singular custom of perforating the lower lip, and wearing in it a wooden ornament. The southern tribes have been called Nootka-Columbians, which indicates their locality. The practice of flattening the head in infancy is universal among them, but unknown to the north. To this family belong the Chenooks, the Flat-heads, the Clatsops, and others; they are distinguished for their love of music.

Dr. Prichard thinks the northern tribes more interesting than the last, as they furnish an example, according to him, of a white American race, which, compared with the black Californians, bears a relation to climate similar to the white Europeans of the Old World compared with the black Africans. The dioms of the Noot-

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ka-Columbians bear a remote affinity, as well as those of the northern tribes, to the Azteca-Mexican; "a fact which recalls the tradition that the Nahuatlacas originated from a region far to the north; the language of Nootka bears strong resemblance to the Mexican in the terminations of words, and the frequent recurrence of the same consonants."

M. D'Orbigny divides the South American nations into three families; the Andian group, or Alpine nations, including the Peruvians, the Antisians, and the Araucanians; the Brazilio-Guarani, from the foot of the Peruvian Andes, eastward to the Atlantic, including the vast plains of the Orinoko and the Amazon; and the Mediterranean group, in the central and southern parts of the continent. Of two and a half millions of the pure aboriginal races, one and a half millions are Christians, through the efforts of Roman Catholic missionaries.

The Peruvian family includes the Inca race, the Aymaras, the Atacama, and the Changos. Of the Peruvians we shall say more, when noticing the Crania Americana. The Inca race, or Quichuas, are noted for a very great volume of the chest, which is due to the elevated regions in which they live, and the consequent extreme expansion of the air; living at a height of between 7,500 and 15,000 feet above the level of the sea, a much greater quantity of such rarefied air must be inhaled for the respiratory functions; to effect this, or in consequence of this, the lungs are dilated, and the thorax from infancy is abnormally developed; in the lungs there is a kind of natural emphysema. The Aymaras resemble the Incas in physical character, but differ from them entirely in language. It is probable that from Tiaguanaco, the most ancient city of South America, and one of the great cities of the Aymaras, the religion, the arts, and the civilization of the Incas originated. The heads of the modern Aymaras display no trace of that flattening of the skull so conspicuous in the tombs around the lake of Titicaca and other parts of the Aymara country. It is now fully proved that the depressed or elongated form of the skulls is owing to the intervention of art; its origin was probably contemporaneous with the reign of the Incas; it appeared to be a mark of honor, as such deformed skulls were found in the largest and finest tombs.

The Atacamas occupy the western declivity of the Peruvian Andes, and the Changos spread along the coast of the Pacific; the latter are of a much darker hue, probably depending on their ocal situation by the sea-coast.

The Antisian branch inhabits the eastern declivity of the Bolivian and Peruvian Andes, from 13° to 17° south latitude. Living in

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damp forests rarely penetrated by the sun's rays, they are almost white, and those tribes are the fairest who dwell in the thickest woods.

The Araucanian branch defended the mountains of Chili from the Spaniards; the fishing tribes of Tierra del Fuego are referred by D'Orbigny to the Araucanian race.

Of the Mediterranean group, the Patagonians comprise the tribes of this name, and races extending from the Straits of Magellan to 20° south latitude, including the wandering tribes of the Pampas; they are the nomadic nations of the New World, fierce warriors, averse to agriculture and all the arts of civilization. Their complexion is darker than that of most South Americans; they have long been celebrated for their tall athletic forms; the stature of the most southern is the greatest; it diminishes as we go northward.

The agricultural and fishing tribes inhabiting the central provinces of South America are called by the Spaniards, Chiquitos and Moxos.

The vast region of South America east of the river Paraguay, is inhabited by two great families of nations, the Guarani of Paraguay and the Tupi of Brazil, and the Caribbees in the countries bordering on the Gulf of Mexico. According to D'Orbigny, the following is their characteristic description: "Complexion, yellowish; stature, middle; forehead, not so much arched as in other races; eyes, obliquely placed, and raised at the outer angle." These traits approximate them to the nomadic races of High Asia. Spix and Von Martius thought the Caribbees very like the Chinese.

Having thus given the anatomical and external characteristics of the various human races, and drawn from them the conclusion that all are varieties of a single species, he adds testimony which he thinks corroborative from their physiological and psychological characters. He remarks that the average duration of human life is nearly the same in all the races; at any rate, there is the same tendency to exist for a definite time, which may be shortened in some cases by peculiarities of climate and external circumstances. The progress of physical development and the periodical changes of the constitution are the same, as also the natural and vital functions; he mentions the temperature of the body, the frequency of the pulse, and the periodical changes in the female sex. In all these great regulations of the animal economy, mankind, white and black, are on the same footing by nature. A comparison of the races with respect to mental endowments, (and he compares the American and the black races with the white,) shows that all have the same inward feelings, desires, and aversions; the same susceptibility of improvement in

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religion and social condition; in a word, the same nature. Adding together the accumulated testimony from anatomy, physiology, and psychology, he says, "We are entitled to draw confidently the conclusion that all human races are of one species and one family."

Dr. Latham* separates the human species into three primary divisions, the Mongolidæ, Atlantidæ, and Japetidæ: — the Mongolidæ inhabiting Asia, Polynesia and America; their languages aptotic† and agglutinate; their influence on the history of the world material rather than moral; — the Atlantidæ inhabiting Africa; their languages with an agglutinate, rarely an amalgamate, inflexion; their influence on the history of the world inconsiderable; — the Japetidæ inhabiting Europe; their languages with amalgamate inflections, or else anaptotic,‡ rarely agglutinate, never aptotic; their influence on the history of the world greater than either of the others, moral as well as material.

The Mongolidæ he divides into,

A. — The Altaic Mongolidæ.

B. — The Dioscurian Mongolidæ.

C. — The Oceanic Mongolidæ.

D. — The Hyperborean Mongolidæ.

E. — The Peninsular Mongolidæ.

F. — The American Mongolidæ.

G. — The Indian Mongolidæ.

A. — The *Altaic Mongolidæ*, he divides into the Seriform and the Turanian stock.

1. The Seriform stock, of which the chief divisions are the Chinese, the Tibetans, the Assamese, the Siamese, the Kambojians, the Burmese, the Môu, and numerous unplaced tribes; their languages are genérally monosyllabic and aptotic. The Chinese language is remarkable, from the fact that written signs represent whole words, instead of syllables or single articulate sounds. In the wild Seriform tribes we notice erratic agriculture, an exceptional form of human industry, contrasting strongly with the method of cultivating the soil in China.

The Chinese civilization he considers the measure of moral development of the monosyllabic nations; while allowing to the Chinese several of the most important arts and discoveries of

* The Natural History of the Varieties of Man, by Robert Gordon Latham, M. D., F. R. S. 8vo. London, 1850.

† Without cases. ‡ Falling back from inflexion.

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Europe, (as the art of printing, of paper-money, of the mariner's compass, of a certain amount of astronomical knowledge, and even of gunpowder,) he doubts the antiquity of this civilization, and still more the self-evolution of it. Within the historical period, three civilizing influences have been introduced into China. To begin with the latest, European and American intercourse has not changed it in any essential points. The influence of the early Nestorian Christians, between A. D. 600 and 1200, must have been very great, from the introduction of Syrian literature, theology and science. The Buddhism of India is the earliest civilizing influence. The Han dynasty being the extreme date of Chinese history, beginning B. C. 200, Buddhism must have been introduced since that period; it is generally believed to have been introduced in the first century after Christ. He thus limits the growth of Chinese civilization to the last eighteen hundred years, believing "that whatever is older than their religion is *reasonable* tradition for a limited period, (say a century,) and unreasonable tradition beyond it."

2. The Turanian stock, of which the divisions are the Mongolians, the Tungusians, the Turks, and the Ugrians, extending from Kamtskatka to Norway, and from the Arctic Ocean to the frontiers of Tibet and Persia. Though there are here some physical changes, there are also greater changes in the languages, from those of a monosyllabic and aptotic type to those polysyllabic and anaptotic; but as we know what modifies *form*, and what modifies *language*, we may readily understand that physical and philological changes may go on at different rates.

An interesting branch of the Ugrian division of the Turanian stock is the Magyar, or Hungarians, who migrated from the country of the Baslekirs, about A. D. 900. Those who would connect the Hungarians with the Huns are misled by the similarity of the name, for no facts are more undeniable than that the Magyars are of Ugrian and the Huns of Turkish descent. The Magyars are the only members of the Ugrians who have made a permanent conquest, within the historical period, over any portion of the *Japetidæ*.

B. — *Dioscurian Mongolidæ*, so called from the ancient sea-port Dioscurias; the term *Caucasian* would have been more appropriate, but it has already been misapplied in another division, the Japetidæ. The principal divisions are the Georgians, the Lesgians, the Irôn, and the Circassians.

Dr. Latham differs from the long established division of mankind by placing the Caucasians, who have been heretofore considered as a preëminently European type, among the Mongolidæ. The anatomical reason for making the Circassians and Georgians, so

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called, Caucasians, was a single fact:—Blumenbach had a solitary Georgian skull, which happened to be the finest in his collection, that of a Greek being the next; hence it was taken as the type of the skull of the higher divisions of mankind, and gave rise to the term Caucasian. "Never has a single head done more harm to science than was done in the way of posthumous mischief, by the head of this well-shaped female from Georgia;" this is the amount of fact. Similar attempts have been made to connect the Dioscurian languages with the Indo-European tongues; in 1845, Dr. Latham announced before the British Association, from the comparison of the *words* only, "that the closest philological affinity of the Dioscurian languages was with the aptotic ones;" and soon after, Mr. Norriss, of the Asiatic Society, expressed the same opinion, on *grammatical* grounds. As to the symmetry of shape and delicacy of complexion of the Georgians and Circassians, so different from the Mongolian, the reader is reminded of the climatologic condition of the Caucasus: temperate, wooded, mountainous, and near the sea,—the very reverse of the Mongol areas. "It is only amongst the chiefs where the personal beauty of the male population is at all remarkable; the tillers of the soil are, comparatively speaking, coarse and unshapely."

C.—*Oceanic Mongolidæ*, divided into the Amphinesian* and Kelænonesian† stocks.

The ocean being a medium of communication between races only in proportion to the skill, experience and courage to use it, all a priori generalizations on it, as an element of ethnographical dispersion, must be unscientific. With a few exceptions, every inhabited spot of land in the Indian and Pacific Oceans is inhabited by tribes of the same race, and that race *Oceanic;* with the exception of the Peninsula of Malacca, it is not only *everywhere in the islands*, but *nowhere on the continent*. In an ethnographical distribution by *water*, the *later* date we assign to it the more explicable are the phenomena, from the more advanced state of navigation favoring the dispersion; while, in an extension by *land*, the *earlier* the migration takes place, the less is the resistance of surrounding nations.

1. The Amphinesian stock consists of two branches, the Protonesian, and the Polynesian.

The Protonesian branch occupies the Malayan Peninsula, Sumatra, Java, Timor, Borneo, Celebes, the Moluccas, the Philippines, &c. With respect to the Malayan Peninsula, the most important fact is its being the only continental seat of any Malay

* Amphi, around, and nesos, island. † Kelainos, black.

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nation, which suggests the idea of its being the original country of the many widely dispersed Malay tribes.

Of all the tribes of the Old World, the Oceanic stock have been the most extensively accused of cannibalism; not as a mark of honor, nor to gratify revenge, but for purposes of food.

Among the singular customs of the Island of Celebes, women are eligible to the highest offices of the state; so that, at the present moment, four out of six of the hereditary rajahs are females. Among the Bugés, some men dress like women, and some women like men, for their whole lives, devoting themselves to the occupations of their adopted sex.

The Polynesian branch inhabits the islands from the Pelews to Easter Island, west and east, and from the Mariannes to the Sandwich Islands; their aliment is preëminently vegetable; they are distinguished by the little or no use of the bow and arrow from the Kelænonesians. To the inhabitants of the Pelew, Caroline, Marianne, and Tarawan groups, he gives the name of Micronesians.

The population of the Sandwich Islands is exceedingly mixed; no area is at once so European and so Polynesian. The Sandwich Islanders are themselves emigrants, and "are found at the coast of America opposite, thus giving admixture to the Californian and Oregon Indians. They do the same in South America, on the coast of Peru and Ecuador;" thus giving rise to the imperfectly studied union of the American and Oceanic races.

2. The Kelænonesian stock is divided into three branches, the Papua, the Australian, and the Tasmanian.

The Papua branch is found in New Guinea, New Hebrides, and the neighboring islands, and in the Fiji archipelago.

In the Australian branch the lowest form of humanity has been sought for, though it is probable that there has been considerable over-statement on the subject.

The Tasmanian branch inhabits Van Diemen's Land.

D. — *Hyperborean Mongolidæ* belong to Siberia, on the coasts of the Arctic Ocean, and the courses of Yenisey and Kolwyma rivers. They are divided into Samöieds, Yeniseians, and Yukahiri. The Samöieds resemble very nearly the Greenlanders in their physical appearance. This section probably will be found to be a subdivision either of the Turanian or the Peninsular Mongolidæ.

E. — *Peninsular Mongolidæ* comprise tribes separated from each other, both geographically and ethnologically; the principal divisions are the Koreans, Japanese, Kamtskadales, and others, inhabiting the islands and peninsulas of north-eastern Asia; their languages are agglutinate, and, in some cases, excessively polysyllabic

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They are connected by common physical and social conditions; they lie within a few degrees of the same longitude; and their languages have a general *glossarial* connection with each other, and with the *American* languages, which is sufficient reason for placing them in a separate division.

"The true Kamtskadales are a nearly extinct race. Amongst the causes of their rapid diminution, a kind of death, rare amongst savage nations, is enumerated — suicide."

F. — *American Mongolidæ*, comprising the Esquimaux and the American Indians. Over this vast area, whenever the languages differ from, or agree with, each other, they differ or agree in a manner to which Asia has furnished no parallel.

The Esquimau is the only family common to the Old and the New World, and the Esquimau localities are the only ones where the two continents approach each other very nearly; so that it would seem easy to decide in what manner America was peopled. Our choice must be between the doctrine that derives the American nations "from one or more separate pairs of progenitors, and the doctrine that either Behring's Straits, or the line of Islands between Kamtskatka and the Peninsula of Aliaska, was the highway between the two worlds — from Asia to America, or *vice versa*;" as it does not necessarily follow that the race must have arisen in Asia, though there are valid reasons for this opinion. Physically, the Esquimau is a Mongol and an Asiatic; philologically, he is an American. The Esquimaux of the Atlantic coast are easily distinguished from the American aborigines to the south and west of them, in appearance, manners, and language; while the Esquimaux of the Pacific coast, in Russian America, pass gradually into the proper Indians in the same respects.

The great differences between the American Indians, as a body, and the tribes of the Old World would naturally lead to an opinion in favor of a general and fundamental unity among the several sections of them; "the Brazilian and the Mohawk equally agreed in disagreeing with the Laplander, or Negro; and this common difference was enough to bring them within the same class." The languages of the American nations differ remarkably from each other; but, as Vater has indicated, "the discrepancy extends to words or roots only, the general internal or grammatical structure being the same for all;" while they differ glossarially, they agree grammatically, — a philological paradox. The likeness in the grammar has generally been considered of more weight than the difference in the words, so that the evidence of language is in favor of the unity of all the American nations, including the Esquimaux.

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Some have been disposed to separate the Esquimaux, and the Peruvians and Mexicans, from the other Americans — the former on account of an inferior, the latter on account of a superior "civilizational development," and maintained in consequence, that the American stock is not fundamentally *one*. But the Esquimau civilization is not *lower* than that of the other Americans, it is only *different*, as would be expected from their Arctic habitat, their fishing habits, and their Fauna and Flora. As to physical characters, they are taller than half of the South American tribes; they are as dark as most of the American races, only a few typical nations being copper-colored; their skulls approach the "brakhy-kephalic" character of the American; and, finally, their language is American in grammatical structure, and even in words.

The Peruvio-Mexican civilization has been over-estimated; the phenomena of their social and political condition should not be compared with European feudalism and chivalry, but rather with "their analogues, the probationary tortures of tribes like the Mandans, and the constitution of such an empire as Powhattan's in Virginia;" if we compare this empire of Powhattan with the kingdom of Montezuma, we shall find the difference of civilization to be in *degree*, and not in kind. The differences between the Peruvian and the American skull are artificially produced, by flattening in front, behind, or laterally, as the case may be.

While thus advocating the unity of the American nations, one among another, he omits the consideration of their unity with nations of the Old World. He merely says, "I know reasons valid enough and numerous enough to have made the notion of the *New* World being the oldest of the two a paradox. Nevertheless, I know no absolutely conclusive ones."

G. — The *Indian Mongolidæ* comprise the inhabitants of Hindostan, (in part,) Cashmere, Ceylon, the Maldives and Laccadives, and part of Beloochistan; they have numerous relations with the Japetidæ.

The Atlantidæ he divides into —

A. — The Negro Atlantidæ.
B. — The Kaffre Atlantidæ.
C. — The Hottentot Atlantidæ.
D. — The Nilotic Atlantidæ.
E. — Amazirgh Atlantidæ.
F. — The Ægyptian Atlantidæ.
G. — The Semitic Atlantidæ.

It is necessary to remember the difference between the Negro and the African; the true Negro area, occupied by men of black skin,

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thick lips, flat nose, and woolly hair, being an exceedingly small part of the African continent.

A. — The *Negro Atlantidæ* are distributed on the low lands, sea-coasts, deltas, and courses of the rivers Senegal, Gambia, Niger, and Upper Nile, nearly limited to the tropic of Cancer. The departure from the true Negro features is the greatest on the high or table lands.

B. — The *Kaffre Atlantidæ* inhabit Western, Central (?), and Eastern Africa, from the north of the Equator to the south of the Tropic of Capricorn. Their language has two remarkable peculiarities which seem to separate it from other African tongues; viz., the system of prefixing to every noun a syllable without any separate meaning, and alliterational concord, which changes the initial sound of a secondary word into that of the primary one.

C. —The *Hottentot Atlantidæ* have "a better claim to be considered as forming a second species of the genus *Homo* than any other section of mankind." Their language contains two inarticulate elements, viz., *h*, (like other tongues,) and a peculiar and characteristic *click*.

D. — The *Nilotic Atlantidæ* are principally the Gallas, Agows, and Nubians; through the Nubian is traced the transition from the Egyptian to the Eastern Negro.

E. — The *Amazirgh Atlantidæ* (or Berbers) comprise the Sievans, the Cabyles of the Atlas range, Tuaricks of the Sahara, and the Guanches of the Canaries. These were probably the subjects of Massinissa, Juba, and Jugurtha.

F. — The *Ægyptian Atlantidæ* comprise the *Old* Egyptians, the subjects of the Pharaohs and the Ptolemies; and the modern Copts, in the rare cases where they are unmixed: the present dominant population being Arab.

G. — *Semitic Atlantidæ*. Connection with the Semitic is by no means synonymous with separation from the African stock; we may pass naturally from the Copts to the Semitic tribes of Abyssinia, Arabia, Palestine, Syria, Mesopotamia, &c., including Syrians, Assyrians, Babylonians, Phœnicians, Hebrews, Arabs, Ethiopians, &c.

The Syrian influence on civilization has been undervalued; through the Syrians, Armenia and Arabia received the knowledge of Greece, and more important still has been the influence of the propagandism of the Nestorian Christians in Central and Eastern Asia. The Babylonians were among the first, if not the first, builders of cities and founders of empires; they also made the first application of weights and measures. The achievement of alphabetic writing

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is apparently the work of the Phœnicians. The Arabs have ever been celebrated for their zeal in the diffusion of knowledge, though the amount of originality among them is by no means ascertained.

He thinks all the alphabets that have ever been used are referable to a single prototype, and that Semitic.

In order to account for the difference of tribes under the same latitude, he lays stress upon the accumulation of climatologic influences, and the angle of migration; which he illustrates by supposed migrations through a single zone, and through many rapidly passed zones; in the former case the climatologic influences would be accumulated much more than in the latter.

The Japetidæ he divides into —

A. — Occidental Japetidæ.

B. — Indo-Germanic Japetidæ.

The first consists of the Celts and their branches. The second falls into two classes, the European, and the Iranian Indo-Germans; the former including the Gothic Sarmatian, and Mediterranean nations; the latter, the populations of Kurdistan, Persia, Beloochistan, Affghanistan, and Kafferistan, — tribes descended from the speakers of the Sanscrit languages (in the present state of our inquiry, *dead* languages).

Cuvier divides man into three stocks, Caucasian, Mongole or Altaic, and Negro; he refers the American to the Mongolian stock.

Fischer divides man into Homo Japeticus; H. Neptunianus; H. Scythicus (Mongols); H. Americanus (Patagonians); H. Columbicus (Americans); H. Ethiopicus; and H. Polynesius.

Lesson divides man into the *White* Race; *Dusky* Race, including Hindoos, Caffrarians, Papuans, and Australians; *Orange-colored* Race, the Malay; *Yellow* Race, the Mongolian, Oceanic and South American; *Red* Race, the Caribs, and North Americans; and the *Black* Race.

Dumeril proposes the divisions, Caucasian, Hyperborean, Mongole, American, Malay, and Ethiopian.

Virey divides man into *two species:* the *first*, with facial angle of 85° to 90°, including the white race, (Caucasian,) the yellow race, (Mongolian,) and the copper-colored race (American); the *second*, with facial angle 75° to 82°, including the dark brown race, (Malay,) the black race, and the lackish race (Hottentots and Papuas).

Desmoulins' sections are Celto-Scyth-Arabs; Mongoles; Ethio-

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pians; Euro-Africans; Austro-Africans; Malays; Papuas; Negro Oceanians; Australasians; Columbians; and Americans.

Bory de St. Vincent makes fifteen divisions — races with straight hair, of the Old World; viz., Homo Japeticus;* H. Arabicus; H. Indicus; H. Scythicus (Tartars); H. Sinicus (Chinese); H. Hyperboreus; H. Neptunianus; H. Australasicus; — in the New World, H. Columbicus (North Americans); H. Americanus (South Americans); H. Patagonicus — negro races; H. Æthiopicus; H. Caffer; H. Melavinus (in Madagascar, Fiji Islands, Van Diemen's land); and H. Hottentottus.

Mr. Martin † gives a sketch of the principal divisions of mankind, according to various naturalists, which is quite natural and interesting.

Mr. Martin divides mankind into *five* stocks, as follows:

1. Japetic Stock; including the *European* branch, or the Celtic, Pelasgic, Teutonic and Sclavonic nations; — the *Asiatic* branch, or the Tartaric, Caucasic, Semitic (Arabs, Jews, &c.), and Sanscritic or Hindoo nations; and the *African* branch, or the Mizraimic (ancient Egyptians, Abyssinians, Berbers, and Guanches) nations.

2. Neptunian Stock, including the Malays proper, and the Polynesians; (including, perhaps, among the last, the founders of the Peruvian and Mexican Empires).

3. Mongole Stock, including Mongoles and Hyperboreans.

4. Prognathous Stock, including the Afro-Negro, Hottentot, Papuan, and Alfourou branches.

5. Occidental Stock, including Columbians (North American Indians), South Americans, and Patagonians.

Dr. Pickering ‡ observes, in his first chapter, that, in the United States, three races of men are admitted to exist, and the same three races "have been considered, by eminent naturalists, (who, however, have not travelled,) to comprise all the varieties of the human family." He continues, "I have seen in all eleven races of men; and

* Not in allusion to Japhet, the son of Noah, but to Japetus (audax Japeti genus, Horace), whom the ancients regarded as the progenitor of the race inhabiting the western regions of the world.

† Physical History of Man and Monkeys: by W. C. L. Martin, F. L. S. London, 1841.

‡ The Races of Man, and their Geographical Distribution: by Charles Pickering, M. D. Boston, 1848. [U. S. Exploring Expedition.]

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though I am hardly prepared to fix a positive limit to their number, I confess, after having visited so many different parts of the globe, that I am at a loss where to look for others." He enumerates them in the order of their complexion, beginning with the lightest.

A. — WHITE. Including 1. *Arabian;* with nose prominent, lips thin, beard abundant, and hair straight and flowing. 2. *Abyssinian;* with a complexion hardly becoming florid, nose prominent, and hair crisped.

B. — BROWN. Including, 3. *Mongolian;* beardless, with perfectly straight and very long hair. 4. *Hottentot*, with Negro features, and close woolly hair, and stature diminutive. 5. *Malay*; features not prominent in the profile; complexion darker than in preceding races, and hair straight and flowing.

C. — BLACKISH-BROWN. Including, 6. *Papuan;* with features not prominent in the profile, the beard abundant, skin harsh to the touch, and the hair crisped or frizzled. 7. *Negrillo;* apparently beardless; stature diminutive, features approaching those of the Negro, and the hair woolly. 8. *Indian* or *Telingan;* with features approaching those of the Arabian, and the hair straight and flowing. 9. *Ethiopian;* with complexion and features intermediate between those of the Telingan and Negro, and the hair crisped.

D. — BLACK. — Including, 10. *Australian;* with Negro features, but with straight or flowing hair. 11. *Negro;* with close woolly hair, nose much flattened, and lips very thick.

Maritime habits would separate the Malay, Negrillo, and Papuan, or the three island races, from the eight continental races. Six of the races may be considered Asiatic, and four African; while the eleventh, or white race, is common to both hemispheres. All races exist independent of climate. Three well marked divisions of the soil correspond with *desert*, *pastoral*, and *agricultural* communities. "It is a mistake to suppose, with many, that pastoral or nomadic life is a stage in the progressive improvement of society; the condition is inscribed on the face of nature."

In the Mongolian race, he thinks, the occurrence of a feminine aspect in both sexes, rendering it difficult to distinguish men from women, is characteristic. He was not able to make much use of the oblique eye as a distinctive character, nor the "alleged absence of a projecting inner angle to the lids." According to him, the Mongolian race inhabits "about one half of Asia, and, with a slight exception, all aboriginal America, or more than two fifths of the land-surface of the globe."

According to Mr. Coan, the stature of the southern Patagonians "is nothing unusual, but it is exaggerated by their peculiar mode

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of dress." The Fuegians, though living so near the Antarctic Circle, are entirely destitute of clothing, showing the absence of the severe winters of the north. "Indeed, we afterwards found that in the southern hemisphere vegetation is nowhere checked by a season of cold; but that, in many respects, a tropical climate may be said to extend to the Antarctic snows." The *dog* is found among the natives of the extreme point of South America; slings are used by the Fuegians, but not by the North American Indians.

Among the North-west watermen, the air of quietness was very striking; they appeared on good terms with the birds and beasts, and as if forming with them a part of the animal creation; in accordance with an idea entertained, "that the Mongolian has peculiar qualifications for reclaiming or reducing animals to the domestic state." The dog is used by them as a beast of burden. The Chinooks are considerably superior to the hunting tribes of North America in various arts and ingenious devices. The skulls of the Chinooks are flattened in infancy; but, as they grow up, the skull resumes its natural shape to such an extent as to show very little trace of the previous deformity, except an unusual breadth of the face. Slavery exists among the Chinooks, and is probably connected with the first peopling of the American continent. He thinks the fate of the Chinooks may possibly be different from the rest of the continental tribes, from "the greater density of a spirited population, and the scanty proportion of agricultural territory," and that "they can only give place to a maritime people like themselves."

Speaking of a bas-relief from Palenque, he says, "It is eminently characteristic of the Mongolian, and seems decisive as to the physical race of the people who reared the remarkable ancient structures discovered in that part of America."

The Aborigines of the United States seemed to him physically identical with their brethren west of the Rocky Mountains; their stature is higher, however, and not inferior to Europeans. He thinks all belong to the Mongolian race. Of the Chinese, he says, "I repeatedly selected individuals, who, if transported in a different dress into the American forest, might, I thought, have deceived the most experienced eye." At Singapore, the Feejean captive, Veindovi, saw, for the first time, some Chinese, and "at once identified them with his old acquaintances, the tribes of North-west America." Of the Mongolian races, the Aboriginal American has superior powers of endurance; the Chinese excel in persevering industry and frugality; these qualifications promise to have an important bearing on the future destiny of the race.

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The Malay race is the most widely scattered; it exhibits greater variety in its institutions and social condition than all other races combined; and it is truly a maritime race. A marked peculiarity is the elevated occiput, which gives to the face, seen in front, a broader appearance than in Europeans; there is a tendency also to elongation of the upper maxilla. There is a great variety of stature among them; some of the Polynesians (as the Taheitians) are the largest of mankind, while the East Indian tribes are of small stature,— this may depend on food, though in both it is principally vegetable; the former (where grain is almost unknown) live on farinaceous roots and fruits, the latter live almost entirely on rice.

Speaking of the beautiful submarine creation of the coral islands, he says it was exclusively of animal life, even marine vegetables being nearly wanting. The mineral kingdom was also absent; nothing but immense masses of the debris of animals. Myriads of sea-birds and the absence of cocoa-palms announced uninhabited islands; so, on landing, did the absence of the house-fly, and of the Morinda, though the soil is often covered with the Pandanus, which spreads without human aid. The vegetable productions of these islands are limited to about thirty species, of remarkable uniformity over every geographical distance.

Among the Polynesian customs is the salute by rubbing noses together. He calls the Californians, Mexicans and West Indians, *Malay Americans;* a single glance satisfied him of their Malay affinity. At the Bay of San Francisco it was at first not easy to distinguish native Polynesians from the half-civilized Californians. The hair, however, is a test, that of the former being waved and inclined to curl, while that of the latter is invariably straight. The Californians have not the custom of scalping, nor do they use the tomahawk. The presence of two aboriginal races in America recalls certain historical coincidences. The Toltecs, the predecessors of the Aztecs in Mexico, were acquainted with agriculture and manufactures. Now, such cultivation could not have been derived from the northern Mongolian population, who in their parent countries were by climate prevented from being agriculturists. If, then, this art was introduced at all from abroad, it must have come by a southern route, and, to all appearance, through the Malay race. This is not incompatible with an ancient tradition, attributing "the origin of their civilization to a man having a long beard;" he could not have been a Mongolian; he might have been a Malay. "If, however, any actual remnant of the Malay race exists in the eastern part of North America, it is probably to be looked for among

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the Chippewas and the Cherokees." He gives many examples of Malay analogies. He refers the Japanese to the Malay race.

The Australian has the complexion and features of the Negro, but hair instead of wool; the forehead does not recede so much, and often an unusually sunken eye gives it rather the appearance of projecting; the eyes, though small, are uncommonly piercing. He saw about thirty, some of whom were very ugly, and others decidedly fine-looking. He did not notice the usually described slenderness of limb; their forms were generally better than those of the Negroes. He refers to an Australian as the finest model of human proportions he had ever seen. The hair was usually undulating, and even curling in ringlets.

The Australians absolutely reject all the innovations of civilization; they are strictly in the "hunter state;" they appear as anomalous as the inferior animals with which they are associated. If the wild Australian dog be a peculiar species, as there is reason to believe, and never the companion of man, these people are absolutely without domestic animals; "a circumstance perhaps fairly unique."

The Papuan race are robust blacks, inhabiting, among others, the Feejee Islands. They differ from the rest of mankind in the hardness or harshness of the skin. The hair is in great quantity, naturally frizzled and wiry; when dressed, its thickness will protect against a heavy blow; it actually incommodes the wearer when lying down, and renders necessary a wooden neck-pillow. The beard exceeds in quantity that of all except the White races. The features resemble the Negro, but the face is longer; in stature they exceed the White race. The favorite color among the Feejeans is vermilion-red; among the Malays it is yellow. The former have not the excessive fondness for flowers manifested by the Polynesians; they rarely anoint themselves with oil; they salute by touching noses instead of lips. Among the Feejeans there exists a general system of parricide; few persons die a natural death; when they have passed the prime of life, and are unfit for the service of the state, the son makes use of his privilege and takes the life of his parent. This strange custom, apparently so inhuman, is a sacrifice in favor of the children, — a kind of savage virtue in a land where the means of subsistence are limited. Cannibalism is of daily occurrence, and is regarded in the light of a refinement.

The Negrillo race occupies the New Hebrides, the interior of New Guinea, Luzon, &c. It differs from the Papuan in its diminutive stature, general absence of beard, the inclined profile, and the exaggerated Negro features; the hair is less knotty than that of the Negro, and more woolly than that of the Papuan.

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The Telingan comprises the natives of Eastern and Western Hindostan and Madagascar.

The Negro race is the darkest of all, and is rivalled only by the Hottentot in the close woolly texture of the hair. The absence of rigidity and of a divided apex of the cartilage of the nose is common to this and the Malay, and probably other races. In Albinos, when the skin resembles that of Europeans, the hair resembles "a white fleece." The excellence of the Negro ear for music is proverbial; much of our popular music, which has been supposed to be of Negro origin, may probably be traced to a more distant and ancient source.

In Egypt, Negroes are principally confined to Cairo and Alexandria, and are generally house-servants; they do not engage in the labors of agriculture, and they are not so represented on the ancient monuments. Negroes are figured principally in connexion with the military campaigns of the Eighteenth Dynasty. One of this dynasty (Thouthmosis IV.) probably had a negress for his queen. He does not remember seeing Negroes represented on the anterior monuments, nor indeed on those of much later date. He says, "I am not aware of any fact contravening the assumption that Negro slavery may have been of modern origin; and the race even seems to have been very little known to the ancient Greeks and Romans." The Soahili are a mixed race of Negroes and Whites, living at Zanzibar and other localities; in the same island is also a mixed race of Negroes and Malays. Among the people of Eastern Africa he could not hear of any pastoral Negroes, nor of Ethiopian cultivators. The Kaffers "belong physically to the Negro race."

The Ethiopian race is intermediate between the Telingan and Negro in personal appearance and in complexion. The hair is crisped, but fine, never wiry; the skin is soft, and the features European-like. It occupies the hottest countries of Africa; most of the tribes are pastoral, wandering, some of them in the recesses of the Great Desert. The Nubians of the Nile, and some tribes bordering on Abyssinia, lead an agricultural life.

The Ethiopian race seems to have furnished the originals for the ancient monuments of Egypt, as late as the end of the Eighteenth dynasty; their manner of braiding and plaiting the hair is that which prevails in the mummies. Most of the monarchs of this dynasty were certainly of the White race, and subsequent to, if not before this period, the Egyptians were regarded as a nation of the White race; at the same time, there is abundant evidence that some of the Egyptian Pharaohs were physically Ethiopians. The Somali, Denkali, Galla, and M'Kuafi belong to the Ethiopian race.

The Hottentot differs in physical race from the Negro, being of

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light complexion and diminutive stature. The area of the Hottentot race has been generally limited to a small locality at the south; it is probable that it extends a considerable distance towards the interior of the continent. Unlike the Kaffers, the Hottentots readily adopt the habits of civilization, and are useful assistants to the colonists. Of the Bosjesmans of the frontier, it is quoted, "They live among rocks and woods; have a keen, vivid eye, always on the alert; will spring from rock to rock, like the antelope; sleep in nests which they form in the bushes, and seldom pass two nights in the same place; supporting themselves by robbery, or by catching wild animals, as reptiles and insects."

The Abyssinian race may be said to have European features, with crisped hair and light complexion. Mr. Roohon speaks of them as "a fine set of people, men absolutely such as ourselves, and capable of doing anything that we can do." Mr. Isenberg says, "Under the same advantages, Abyssinia might rise to an equality with a European nation." This is the third race, "which will enter into the question of the primitive Egyptians;" the profile corresponds well with that of the monumental Egyptian; though Mr. Gliddon has pointed out the true Abyssinian separately and distinctly figured on the monuments.

He divides the White race into two branches, differing as well geographically as in institutions and habits; viz., the European and the Oriental; the former rules the sea by its ships, as the latter rules the land by its caravans. He was surprised at hearing from the lips of Orientals words of ancient and modern European languages, "until at last the whole class of these languages seemed as if merely recomposed from fragments of Arabic and Sanscrit; and if any European words can be traced to a different source, they at least remain to be pointed out."

Assuming the population of the globe to be 900,000,000, the races include the following numbers:

The White, . .	350,000,000	The Abyssinian, .	3,000,000
The Mongolian, .	300,000,000	The Papuan, . .	3,000,000
The Malayan, . .	120,000,000	The Negrillo, . .	3,000,000
The Telingan, . .	60,000,000	The Australian, .	500,000
The Negro, . .	55,000,000	The Hottentot, .	500,000
The Ethiopian, .	5,000,000		

Though languages indicate national affiliation, their actual distribution is independent in a great degree of physical race; and much confusion has arisen among writers from neglecting the means of

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extension or imparting of languages. The adoption of a language is "very much a matter of convenience, depending often on the numerical majority." On the supposition, for instance, that Polynesians had reached the American shores, it does not follow that we ought to find traces of their language. On the contrary, it does not follow that races speaking the same language are in any way connected in their origin, as the Whites and Blacks of the United States. He concludes this chapter thus: "In the organic world, each new field requires a new creation; each change in circumstances, going beyond the constitution of a plant or animal, is met by a new adaptation, until the universe is full; while, among the immense variety of created beings, two kinds are hardly found fulfilling the same precise purpose. Some analogy may possibly exist in the human family; and it may even be questioned whether any one of the races, existing singly, would, up to the present day, have extended itself over the whole surface of the globe."

It is evident that the manners, arts, and attainments of the Polynesians are not of independent growth, nor are they the remnants of a decayed higher civilization. If we look to the East Indies, their supposed origin, we find no resemblance. If man has had a central origin, and has gradually spread with his inventions and knowledge, we ought to find his history inscribed on the globe itself; "each new revolution obliterating more or less of the preceding, his primitive condition should be found at the furthest remove from the geographic centre." If we "could go back into the early history of the East Indies, we might find there a condition of society approximating to that of the Polynesian Islanders." Customs, long obsolete in the place of their origin, may continue a long time in remote situations.

Between the east coast of Africa and the coast of America, there are five distinct centres of maritime intercourse, which bring into connexion this immense tract of ocean. From Arabia to Hindostan the navigation is performed by Arab "dows"; from Hindostan to the East Indies, the Bay of Bengal is navigated by the Telingans and Maldive Islanders; the East Indians extend their commercial enterprises from Asia to the northern part of Australia; the main Pacific has two centres of communication with the East Indies, through the Micronesian groups, and the Papuan archipelago, though the former is the main one; this navigation is carried on by Japanese vessels and by the large double canoes of the Society and Tonga Islands; the northern Pacific to America has been passed by these same Japanese vessels and Polynesian canoes; both would naturally and almost necessarily reach the northern extreme of California, precisely the place where we find a second physical race; this course would be

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brought about by the ocean currents and the prevailing winds. Within a few years a Japanese vessel was fallen in with by a whaler in the North Pacific; another has been wrecked on the Sandwich Islands; and, still more in point, a third has actually drifted to the American coast near the mouth of the Columbia river. Finally, between Asia and North-west America, there is almost a continuous chain of islands, inhabited by the same population, so that it is impossible to say where America begins, or where Asia ends.

He considers table-lands as the natural birth-places of civilization. He compares, with this view, the table-lands of Mexico and Peru with the American forests, and their corresponding civilization. America contains two of these natural centres; the table-land of Thibet is a third; all in possession of the Mongolian race. If we look for a fourth, we shall find it only in Abyssinia.

Assuming that man has been placed on the earth subject to the same laws as the rest of creation, — and, finding that the species of animals have in no case been modified by climate, or external circumstances in the various regions allotted to each, but have been originally fitted for their natural localities, — he argues that man, born without natural clothing, does not belong to the cold or variable climates; he must have originated "in a region of perpetual summer, where the unprotected skin bears without suffering the slight fluctuations of temperature;" in other words, he is "essentially a production of the Tropics." He thinks there is "no middle ground, between the admission of eleven distinct species in the human family, and the reduction to one." If the latter opinion be adopted, it implies a central origin, and that origin is probably the African Continent.

Speaking of the introduction of plants into America, he thinks that its agriculture may not be of spontaneous growth; and many of the objects of cultivation have been introduced especially from Japan and the Polynesian islands; many of the American species have not been met with elsewhere, and are doubtless indigenous.

The foreign animals and plants of the Pacific Islands were invariably derived from the West. Three of our domestic animals, the pig, the dog, and the domestic fowl, were known throughout tropical Polynesia before the visits of Europeans. They have also their indigenous animals and plants. He believes that the Indian caves of Budha were constructed by the White race.

THERE has been a singular diversity of opinion in regard to the physical characteristics of the ancient Egyptians; the point of principal interest is whether they were Caucasians or Negroes.

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We may here give an abstract of Dr. Morton's* interesting observations.

Dr. Morton refers the skulls of Egyptian mummies to two great races, the Caucasian and the Negro, the number of the former being vastly the greatest. The Caucasian heads he refers to three types, the *Pelasgic*, the finest conformation; the *Semitic*, as seen in the Hebrews, with comparatively receding forehead, long, arched, and very prominent nose, marked distance between the eyes, and strong development of the whole facial structure; and the *Egyptian*, having a narrower and more receding forehead than the Pelasgic, with a more prominent face; the nose straight or aquiline, the face angular, the features often sharp, and the hair uniformly long, soft, and curling; among these, he includes skulls which blend the Egyptian and the Pelasgic types. Besides the true *Negro* type, there are also heads of mixed characters, in which the Negro predominates; he calls the latter *Negroid*.

Of ninety-eight Egyptian (ancient) crania, forty-nine were Egyptian, twenty-nine Pelasgic, six Semitic, five mixed, eight Negroid, and one Negro; more than eight tenths belong to the unmixed Caucasian race. The Caucasian heads have a larger internal capacity and a greater facial angle than the Negro; and in the order which he at first enumerated the types.

Allowing for the acquired density from infiltration of bitumen, the cranial bones are as thin and light as in Europeans. The hair is as fine and curling as in Europeans, "perfectly distinct from the woolly texture of the Negro, the frizzled curls of the Mulatto, or the lank, straight locks of the Mongolian." Denon pointed out in the Egyptian profile the great distance between the nostrils and the teeth; a small and receding chin is also of frequent occurrence. There is abundant evidence that the complexion of the Egyptians did not differ from that of other Caucasian nations in warm latitudes. While the higher classes, protected from the sun, were comparatively fair, the lower classes were comparatively dark, and might even be called black by the Greeks, in comparison with their own. We find a similar variation among the modern Hindoos.

The same national physiognomy displayed by the mummies is also represented on the monuments, as any one will easily find by turning over the pages of Champollion and Rosellini; viz., an upwardly elongated head, with receding forehead, delicate features, prominent face, in which a long, straight, or slightly aquiline nose forms a principal feature, the chin short and retracted, the lips rather turned, and

*Crania Ægyptiaca; by Samuel George Morton, M. D. Philadelphia, 1844.

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the hair long and flowing. Adopting the Biblical term, he thinks the children of Ham, or Mizraimites, (he does not believe that Ham was the progenitor of the Negro race,) entered Africa by the isthmus of Suez, and were the aboriginal inhabitants of the valley of the Nile; "and that their institutions, however modified by intrusive nations in after times, were the offspring of their own minds;" he believes a portion spread themselves over the north of Africa, and became the nomadic tribes of Libyans. Dr. Beke reverses the route, and thinks the "Cushite descendants of Ham first settled on the western side of the Arabian peninsula, crossed thence into Ethiopia, and, descending the Nile, became the Egyptians of after times."

The term Ethiopian has been used very vaguely, to embrace Arabs, Hindoos, Austral-Egyptians, and Negroes; it is properly applied to the people who occupied the valley of the Nile from Philæ to Meroë, including the present nations of Nubians and Abyssinians, and the great variety of mixed races resulting from Negro proximity. Monumental evidence abundantly shows that the Meroites and Ethiopians had no affinity to the Negro race; the former are always represented red like the Egyptians, while the latter has also the characteristics of his race. He believes "that the Egyptians and monumental Ethiopians were of the same lineage, and probably descended from a Libyan tribe."

The Fellahs are a mixture of the Arab with the old Egyptian stock, and are the lineal descendants of, and least removed from, the monumental race of any now occupying the valley of the Nile.

The monuments also prove that the Egyptian race must have been modified by Pelasgic, Semitic, Arab, and Hindoo tribes, of the Caucasian family. He regards the Copts as a mixed community derived from the Caucasian and Negro. The modern Nubians, he thinks, are "descended, not from the possessors of Ethiopia in its flourishing period, but from the prædial and slave population of the country, increased by colonists, and raised into a nation by peculiar circumstances between the third and sixth centuries of the Christian era."

The monuments give ample evidence of the existence of Negro slavery among the Egyptians; and the vast influx of Negroes must have left an impression on their masters, as we see in the ancient Negroid heads and the modern Copts, thus also explaining the incidental elevation of the Negro caste. Comparing the ancient Egyptian and Negro with their modern representatives, it may be said "that the physical or organic characters which distinguish the several races of men are as old as the oldest records of our species."

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Mr. Van Amringe,* while he admits that all the human family sprang from Adam; that the whole race, except Noah and his family, was destroyed by the deluge; and that since then the whole human family have sprung from three men, — believes, and forcibly argues, that there are no less than *four* different species of mankind. These arguments will be introduced when treating of the diversity of the races.

His species are, 1. The *Shemitic species*, including the Caucasian nations generally; of strenuous temperament. 2. The *Japhetic* species, including the Mongolian races, Esquimaux, Aztecs and Peruvians; of passive temperament. 3. The *Ishmaelitic* species, including most of the Tartar and Arabian tribes, and the American nations, of callous temperament. 4. The *Canaanitic* species, including Negroes and Australians; of sluggish temperament. 5. The *Esauitic* species (!), including Malays and Negroes with long hair.

Dr. Smyth† divides the subject into the question of origin, and the question of specific unity of man; the former he determines chiefly by the evidence of Scripture; the latter, only, he makes a question for scientific observation. He has given a great number of texts to show that the Divine Writings unequivocally teach the origin of the human race from a single pair, Adam and Eve; and he goes so far as to say, "that the gospel must stand or fall with the doctrine of the unity of the human races."

He then undertakes to prove that black races of men have existed in ancient times in a high state of civilization; and, assuming that a black race is a Negro race, he contends, contrary to the opinion of the most learned ethnologists, that the Egyptians and Meroites were nearly akin to, if not absolute Negroes.

Remarking that "it is the glory of God to conceal a thing," and admitting with Leibnitz that "the utmost that can be fairly asked in reference to any affirmed truths of Scripture is, to prove that they do not involve any necessary contradiction," he thinks that the fact of great existing varieties offers no objection to the revelation of Scripture, that all the present races are the descendants of a single pair. He, therefore, adopts the usual theory that the existing vari-

* Outline of a new Natural History of Man, founded upon Human Analogies: by W. F. Van Amringe. New York, 1848.

† The Unity of the Human Races: by Thomas Smyth, D. D. New York, 1850.

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eties of man are analogous to the varieties of animals, and to be accounted for by the operation of natural causes, and external agencies, "or by these causes preternaturally excited."

Speaking of specific differences, he calls color a "*separable accident*," and not a specific distinction in man, because it is not universal in all human creatures. His remarks on hybridity will be better considered when speaking of Dr. Bachman's work, from which they are mostly quoted. The next two chapters are devoted to the consideration of the unity or common origin of languages as an argument for the original unity of mankind. The observations on the testimony of history, experience, the religious character of the race, and the insensible gradation of the varieties, have been alluded to in previous authors, or will be summed up hereafter from the original sources.

The most characteristic part of the work is that in which he maintains that the theory of a plurality of races of men is uncharitable, inexpedient, and unchristian; he collates texts to prove that the Negro is "God's image carved in ebony," maintaining that he has "the same primeval origin, the same essential attributes, the same moral and religious character, and the same immortal destiny" (p. 332); and yet, talking about the "first law of slavery," the right of property in a human being enforced by *divine* commandment, the right of the master to the labor of the slave for life, of anti-slavery movements as blind philanthropy, &c., he says, (pp. 334–5,) "The relation now providentially held by the white population of the South to the colored race, is an *ordinance of God*, a form and condition of government permitted by Him, in view of ultimate beneficial results. *God's authority, God's word, and God's will*, and not the applause or the condemnation of men, *must be her rule of action*." This, and still stronger, language shows rather the polemic theologian, and the advocate of Southern institutions, than the scientific naturalist, and ethnologist; and, however appropriate in other places, is quite irrelevant on the subject of the origin of mankind.

In contrast with the last author, Dr. Bachman,* in a philosophic manner, pursues his investigations "irrespective of any supposed decisions which may have been pronounced by the Scriptures."

* The Doctrine of the Unity of the Human Race examined on the Principles of Science. By John Bachman, D. D. Charleston, S. C., 1850.

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Animals and plants, in a state of domestication, or of cultivation, are subject to remarkable changes when removed from their native soils; and these varieties become permanent, not reverting to the original wild stock even when returned to their original localities; this he considers a well established fact. He collected together a great number of hybrids of animals and plants, and found them sterile in every instance but one; he was satisfied "that a union of two species could not produce a new race, and that species were the creation of God." With Prichard he considers domestication of animals analogous to domestication in man, and that the varieties of the animal kingdom within the range of species explain the permanent varieties of man; or, rather, that they have been produced by similar causes.

He reviews at length the alleged instances of fertile hybrids in the article of Dr. S. G. Morton, and finds no reason to change his opinion as above expressed. He objects that the instances are taken often from remote distances where it is impossible to verify them; that the authorities quoted are either contradictory, obscure, or of little scientific merit; and the innumerable instances to the contrary seem to him entirely decisive, that hybrids between different species are sterile. No instance, not open to doubt, can be shown of hybrids fertile for several generations, without a crossing with one of the original stocks; many of the so-called different species, breeding together, are generally believed to be mere varieties of a single species, *e. g.*, of the horse, the hog, the sheep, the dog.

As hybrids are sterile, hybridity is a test of specific character; and, as all the races of men produce with each other a fertile progeny, they may fairly be said to be of the same species.

The striking and permanent varieties of animals are acknowledged to be the results of an *organization* by which the species are enabled to produce varieties. Taking it for granted that we must be governed by the same laws for determining species in man and animals, he asks, Why do our opponents persist in calling human varieties distinct species? Instancing the well-known varieties of the wolf, Why do naturalists admit these as mere *varieties*, and insist that the human races are as many *species?* The same question is asked concerning the horse, the cow, the sheep, the hog, the dog, domestic fowls, and pigeons, in which there is the same disposition to branch out into varieties from a common stock, as great as between the races of men. Great variations have occurred in many Caucasian nations, while wild animals, with few exceptions, have undergone no change; showing the influence of domestication. According to

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him, man ought to be compared as a domestic species, and not as a wild one.

He believes that man originated in a tropical climate; that the original type no longer exists; that the European is as much an improved race in form and color, as the Negro is a degenerated one. We have no evidence that a white race, like the Europeans, existed at the primitive dispersion of man. Central Asia, usually regarded as the birth-place of man, is also the native country of his domesticated animals and poultry, and of the grains and vegetable productions carried with him in his migrations. In what manner climate tends to produce human varieties, he does not pretend to say; the fact is evident, the manner unknown. He thinks "there is in the structure of man a constitutional predisposition to produce varieties in certain regions of country." To show the tendency in animal and human constitutions to transmit peculiarities to offspring, he gives examples showing that excrescences and malformations, and even arrests of development, may be thus transmitted; he shows, also, how suddenly Nature goes from one extreme to another in the production of Albinos. He supposes that the constitutions of men in early ages, before the races had become permanent, may have been more susceptible of producing varieties than at a later period; he believes that when new varieties are formed, they multiply very rapidly, while previously existing varieties diminish. The difficulties in explaining the varieties of animals are just as inexplicable as those concerning the races of man; there is, in the organization of animals and man, a power to produce varieties suited to every climate. Though he considers the African an inferior variety of the race, he shows that it is capable of considerable improvement; and that even in the shape of the skull there is, in American-born specimens, a striking departure from the original type.

From Tiedemann, he gives the conclusions: that the brain of a Negro is as large and as heavy as that of other human races; the nerves of the Negro, the form and proportions of the various parts of the spinal cord, and the inward structure of the nervous system, show no important difference from those of the European; the Negro brain does not resemble the brain of the orang-outang, any more than does that of the European. These results are confirmed by the measurement of Dr. S. G. Morton. In answer to the question, why a negro does not change into a white man in the native country of the latter, and *vice versa*, he says the races are already established, and varieties once formed do not revert to their original stocks; the Shetland pony cannot be converted again into the wild

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Tartar horse, any more than a negro can be reconverted into his lighter original stock.

He thinks the theory of the creation of the same species of animals and man in different localities open to the following objections: it supposes a multiplication of miracles, to produce an effect which might have been produced by second causes, viz., an organization capable of producing varieties suited to every climate, and ample means of migration. It confounds all the rules by which naturalists are governed in the determination of species. The creation of a species in one locality, and the creation of the same species as a *very distinct variety* in another locality, is very nearly equivalent to the creation of these as different species. The same species of animal, as far as he knows, is not created in separate localities, as regards mammals and birds. Apparent exceptions in the lower animals and plants may be satisfactorily accounted for in another manner. The animals of the Eastern Continent are all of different species from those of America, with the exception of the Arctic animals, which can easily migrate to the temperate latitudes of either continent. The eggs of fishes, crabs, and other lower animals, very tenacious of life, are the food of many birds of powerful flight, and may be voided from their bodies at considerable distances while they yet contain the principle of life. Seeds are also conveyed to immense distances by various animals, pass through their bodies, and spring up. This may account for the apparent existence of the same species, in the few cases where it has been observed, in localities remote from each other. Geological changes of the earth's surface should also be considered in this connection. Currents of water and winds also scatter seeds to great distances from their original source. A last objection is the nature of man's organization, endowed with a constitutional power to become naturalized in every climate.

He coincides with Dr. Pickering in referring the American Indians to the Mongolian race, and the inhabitants of California, &c., to the Malay, though he arrived at this conclusion before he knew Dr. Pickering's views.

Dr. Morton* divides the American race into two families, one of which, the *Toltecan*, bears evidence of centuries of civilization,

*Crania Americana, by Samuel George Morton, M. D. Philadelphia, 1839.

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while the other, the *American*, embraces all the barbarous tribes of the New World except the Polar nations.

Between the Appalachian, the Brazilian, Patagonian and Fuegian branches of the American family, there are some slight differences, which may be attributed to the effects of climate and locality and the consequent habits of life; though all have the low, broad forehead, high cheek-bones, aquiline nose, large mouth, and wide skull, prominent at vertex, with flattened occiput, peculiar to the American race. The orbits have their superior margin slightly curved, and the inferior margin like an inverted arch, contrasting strongly with the oblong orbit and parallel margins of the Malay. The Toltecan family includes the semi-civilized nations of Mexico, Peru, Bogota, Guatlmala, Yucatan, Nicaragua. This differs from the American family in intellectual faculties principally. Their architectural remains show their great attainments in the practical arts of life. This family is the Neptunian species of Bory de St. Vincent, who refers them to the Malay race, in which Dr. Morton does not agree with him, for reasons to be given hereafter. From the examination of nearly one hundred Peruvian crania, he at first came to the conclusion that the heads of the ancient Peruvians were *naturally* very much elongated, differing in this respect from the Inca Peruvians, who appeared later. That opinion he has since* given up, and believes the elongated shape to be the result of compression. He now believes that the descendants of the ancient Peruvians yet dwell in the land of their ancestors, under the name of Aymaras, their probable primitive name; that the Aymaras resemble the surrounding Quichua nations in almost every respect, having ceased to mould the head artificially; that, according to M. D'Orbigny, the flattened skulls were always those of men, while the heads of women retained the natural American shape; that this deformity was a mark of distinction; that these people were the architects of their own tombs and temples; that the capacity of the cranium is the same in the ancient and modern Peruvians, about seventy-six cubic inches, — a smallness of size without parallel, except among the Hindoos. D'Orbigny also believes that the ancient Peruvians were the lineal progenitors of the Inca family, — a question not yet decided. The ancient Peruvian head is remarkable for its long, narrow form, inclined forehead, and length of the occiput behind the ear; the face is proportionally narrow.

The Inca Peruvians date their possession of Peru from the 11th century, — a period corresponding with the migration of the Tol

* Journal of Academy of Natural Sciences, Philadelphia. Vol. 8, 1842.

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tzcas from Mexico; hence it has been supposed these were of common origin. At any rate, the Incas are supposed to have been an *intruding* nation. The Inca skull is remarkable for its small size, its quadrangular and unsymmetrical form, its prominent vertex, its compressed and often vertical occiput projecting to one side or the other, and its consequent great parietal diameter. He thinks this flatness of the occiput, common to the whole American race, may be increased by the manner of treating their children in the cradle.

The heads of the ancient Mexicans resemble, both in size and form, the unaltered heads of the ancient Peruvians, with considerable lateral swell, and shortened longitudinal diameter. While the Mexicans were superior to other American nations in intellectual character, their moral perceptions were as much inferior. All their institutions, civil and religious, were calculated to debase the best feelings of human nature; among these was the custom of sacrificing human victims. The difference between the ancient Mexicans and their modern descendants, where the race is unmixed, is no greater than that between the ancient Egyptians and the present Copt.

The traditions of the Natchez Indians state that they migrated from Mexico. The analogies between them and the Toltecas are, the worship of the sun, human sacrifices, hereditary distinctions, and fixed institutions, in which they also differed from all the other Florida nations. They had also the singular custom of compressing their heads from before backwards, giving to them a great height and width.

He is satisfied that the American Indians, the Toltecan family, and the builders of the mounds, belong to one and the same great race, indigenous to America; and that they are not Mongols, Hindoos, or Jews. He thinks the Toltecan family were the only builders of mounds.

In a subsequent paper* Dr. Morton gives his reasons for considering all the American nations, except the Esquimaux, as of one race, peculiar and distinct from all others. The Indian physiognomy he considers "as undeviatingly characteristic as that of the Negro; for, whether we see him in the athletic Charib or the stunted Chayma, in the dark Californian or the fair Borroa, he is an Indian still, and cannot be mistaken for a being of any other race."

From the comparison of 400 crania, from tribes inhabiting every region of both Americas, he finds the same osteological structure in all, viz., squared head, flattened occiput, high cheek-bones, heavy maxillæ, large quadrangular orbits, and low, receding forehead.

* Boston Journal of Natural History, vol. 4, p. 190, et seq.

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This applies equally to the oldest crania from Peruvian and Mexican cemeteries, and the mounds of the Mississippi valley, and the existing Indian tribes.

The moral traits are equally strongly marked. Among them are a sleepless caution, which influences every thought and action, and causes their proverbial taciturnity and invincible firmness; a love of war and destruction; habitual indolence and improvidence; indifference to private property; and the vague simplicity of their religious observances. These are the same from the humanized Peruvian to the rudest Brazilian savage.

They are averse to the restraints of civilization, and seem incapable of reasoning on abstract subjects; they improve not in mechanical pursuits, in making their huts or their boats; their imitative faculty is very small. The long annals of missionary labor give no authentic exception to this state of things. Contrasted with these barbarous tribes are the Mexicans and Peruvians, whose civilization has been before sufficiently alluded to. If it be asked how nations, derived from the same stock, should differ so widely, it may be replied that the contrast is the same between the Saracens, who established their kingdom in Spain, and the Bedouins of the Desert, between the Greeks of the present day and the Greeks of the age of Pericles; and yet these last are known to belong to the same stock. What accounts for the one may explain the other.

In maritime enterprise the American Indian is very much behind other races, even in situations where the ocean invites him to use it as a means of subsistence or communication. In this respect he differs greatly from the Malay, (or Homo Neptunianus, as he might be called,) to whom some consider the American related in California, &c.

Their manner of interment is so different from that of other races, and so prevalent among themselves, that it constitutes another means of identifying them as a single and peculiar race. This consists in burying the dead in the *sitting posture*, the legs being flexed against the abdomen, the arms being bent, and the chin supported on the palms of the hands. This prevails, with but few exceptions, from north to south.

The Esquimaux differ so widely from the Americans, in physical and moral traits, and their aquatic habits, that their ethnographic dissimilarity seems evident to him. He thinks there is no more resemblance between the Indian and Mongolian, in physical characters, in arts, architecture, mental and social features, (especially nautical skill,) than between any other two distinct races. The Mongolian theory is objectionable on account of its vastness

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requiring a long succession of colonies for a distance of 8000 miles, which must have left traces of their series of human waves in the north, where the pressure must have been greatest and the colonization longest in duration; but none such are found.

It remains to present the arguments in favor of an original difference of the human races, and their creation in several different centres; in doing which we shall be obliged to draw on short treatises, most of them recently published, as well as on a dissertation publicly pronounced by the writer.

With those who, like Prichard, believe that the Mosaic account of creation is a full and complete record, to be literally and strictly interpreted, all argument is of course useless, notwithstanding the numerous discrepancies and deficiencies which may be pointed out in that record. Lord Bacon uttered a great truth, when he said, "The union of religious and philosophical investigation is often detrimental to the cause of truth." It is not Christian philosophy that would have men shrink from the investigation of Nature, from fear of finding a contradiction between the *works* and the *word* of God. When rightly understood, they must harmonize. Nor can we assume that human knowledge has as yet arrived at its maximum in the comprehension of the *word* any more than it has of the *works* of God.

Professor Agassiz * remarks that though the question is not at all connected with religion, and belongs entirely to natural history, still the theory of the diversity of origin of the human races does not *contradict* the Mosaic record, which is best explained by referring it to the historical races. There is in it no account of the origin of nations unknown to the ancients, as the Arctic nations, Japanese, Chinese, Australians, Americans. We have a right to consider all possible meanings of the text, and no one can object except those "whose religion consists in a blind adoration of their own construction of the Bible." There is not a line in it which hints that the differences in nations were introduced by the agency of time. All its statements refer either to the general moral and spiritual unity of man, (which no one denies,) or to the genealogy of a particular race. There is no evidence that the sacred writers considered the colored races as descended from the same stock as themselves. This is a modern and human invention for political or other purposes. By taking into view these non-historic races, with no records, and consequently unmentioned in the Bible, we greatly "lessen the perplexity of those who cannot conceive that the Bible is not a textbook of natural history, and who would like to find there informa-

* Christian Examiner, Boston, March and July, 1850.

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tion upon all those subjects which have been left for man to investigate." If, then, the origin of the human race, from a single pair, can be proved at all, it must be proved independently of the Jewish Scriptures; it must be treated as a pure scientific question.

Many of the varieties of domestic animals are ascribed to climate. If this be the true cause, asks Agassiz, "why do we find different varieties in the same climate? Why does the Durham breed of cattle continue in the United States with all its peculiarities?" The care of man, greater than the influence of climate, can keep up varieties in spite of it. Superficial observers — "those who have only known the differences called climatic differences, existing between some mammalia and birds, which occur simultaneously in different latitudes — may well have assumed that such differences have been produced by change introduced in the course of time;" but when we consider the great mass of facts in natural history, known only to those who have made it a special study, these inadequate and accidental causes cannot explain such general phenomena.

In considering this subject we are not to confound the Unity of Mankind with the Diversity of Origin of the Human Races — questions which are quite distinct, and have almost no connection with each other.

The geographical distribution of animals furnishes to the naturalist very strong evidence in favor of the original diversity of the human races. There are certain recognized zoological and botanical provinces, with well-defined and constant limits. The Fauna and Flora of each hemisphere, and of each zone, have their peculiar characters; more resembling each other as we go towards the north, and more widely different as we approach the equator. Even marine animals, in an element undergoing very little change and especially suited for rapid and distant migrations, are restricted to a certain extent of surface, or are confined strictly to certain depths. We have no right to say that the law, "Thus far shalt thou go, and no farther," was impressed on animal and vegetable life as a subsequent addition to the creative act.

We know, too, that there have been successive creations of animals and plants at different geological periods; and that they were distributed in localities best suited for their life and growth for a certain time. In many instances, as in the Edentata of Brazil and the Marsupiata of New Holland, these fossil types were the same as the actually existing types of these localities, though of different genera and species; this coincidence of distinct creations, separated by immense intervals of time, but occupying precisely the same limits, is certainly difficult to explain by the theory of the origin of

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all animals from the high lands of Asia, or any other single centre. It is not probable that the same animals would have *twice* wandered across land and sea to the *same* localities. Of this local creation of animals, the island of New Holland furnishes a striking example; nearly as large as all Europe, it contains animals and plants peculiar to itself. With the exception of our opossum, the marsupial animals are peculiar to this region, and no higher animals are abundant. Most of the *genera* and all the *species* of plants were new to botanists. Most of the fishes belong to the cartilaginous type. To Asia belong the orang-outang, the tiger, the dziggetai, &c.; to Africa, the chimpanzée, the zebra, the hippopotamus, the lion, the gnu, the giraffe, &c.; to America, the ant-eater, the buffalo, the llama, the grizzly bear, the moose, the beautiful humming birds, and the mocking bird.

There seems no avoiding the conclusion that there have been many local centres of animal and vegetable creation. Is it most consistent with the wisdom of God to place originally every species in the climate and soil most congenial to it? or to create all species in one spot, whether suited to them or not, and leave them to find out their present localities, at the risk, perhaps, of life? To adopt the latter view seems to be placing the Deity below a mere human contriver.* Wherever we examine nature, we find a perfect adaptation of animals to the circumstances under which they live; when these are changed, the animals cease to exist. The domestic animals and man are able to resist external changes for a longer period, but even these finally degenerate and die. "That which," says Agassiz, "among organized beings is essential to their temporal existence must be at least one of the conditions under which they were created."

The American tribes are uniform from Canada to Cape Horn, whatever the variety of climate; yet they differ from Africans, Asiatics, or Australians; while the inhabitants of the southern extremities of America, Africa, and New Holland, regions having almost the same physical conformation, are extremely unlike each other. We must conclude that "these races cannot have assumed their peculiar features after they had migrated into these countries from a supposed common centre; that they must have originated, with the animals and plants living there, in the same numerical proportions and over the same area in which they now occur." These conditions are necessary to their maintenance.

* "Distribution," says Van Amringe, "can only relate to the subjects to be distributed; but the Old World never had the fauna of New Holland and America; and therefore could not distribute them. From whence did they come?" (p. 144.)

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We find the races of man occupying circumscribed localities in intimate connection with the recognized zoological and botanic provinces. Arctic man, like Arctic animals, is the same in America, Europe and Asia. The races become more distinct as we approach the equator. In temperate Europe we have the great Caucasian family, whose three great branches may be said to be three varieties of the same species, as the varieties of the lion in northern and southern Africa (though having their peculiar marks) constitute one *species*. In temperate Asia we have the Mongolian race; in temperate America we have the Indian. In the tropics we have the African nations, the Malay race, and the people of Central America and the West Indies (by some considered congenital with the Malays). In New Holland we have the Australian; in the Pacific islands we have the Polynesian, and several local varieties. In southern Africa we have the Bushman, the Hottentot and Kafir; in southern America, the Patagonian and Fuegian. Among the quadrumana, which approach nearest to man, we see a similar adaptation of species to continents. The monkeys of America, of Asia, of Africa, of Madagascar, are different from each other; and what is curious is the fact that the *black* orang is confined to the continent occupied by the *black* human races, while the *brown* orang is found with the tawny Malay races. Is it at all likely that one is a modification of the other, by climate or external circumstances?

These facts, to the mind of a naturalist, would prove that both man, and animals and plants, originated together in the places where they are found; for why should man alone assume new peculiarities, very different from his supposed primitive ones, while animals and plants, in the same limits, "preserve their natural relations to the fauna and flora of other parts of the world?" We trace the same general laws throughout nature, and there can be no room "for the supposition that, while men inhabiting different parts of the world originated from a common centre, the plants and animals now associated with them, in the same countries, originated on the spot; such inconsistencies do not occur in the laws of nature." We have additional evidence of the primitive ubiquity of man on the earth in the fact, that, wherever men have migrated, they have found aboriginal nations; we have no record of people migrating to a land which they found entirely destitute of inhabitants.

As to the creation of a single *pair*, or *pairs*, it is opposed to the economy of nature, except in a few instances. In some species of animals, both sexes are of equal numbers; in some there are many females to one male; in others, one female to many males, as the bee; some, in which a single individual is the whole species; others,

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in which many individuals live a common life, as the corals, — so that the number of individuals usually found together is one of the peculiar natural characteristics of species. The reproductive system of animals proves, then, that many of them were not created in *single pairs*, or in a *number of pairs;* for thus they could not have propagated their species. "The idea of a pair of herrings or a pair of buffaloes is as contrary to the nature and habits of those animals, as it is contrary to the nature of pines and birches to grow singly, and form forests in their isolation. A bee-hive never consists of a pair of bees, and never could such a pair preserve the species, with their habits." "Was the primitive pair of lions to abstain from food until the gazelles and other antelopes had sufficiently multiplied to preserve their races from the persecution of those ferocious beasts?" We find the same animals occurring in places distant from each other, in Europe and America, under such circumstances that we must admit their simultaneous origin in both centres. Setting aside the possibility of the conveyance of eggs in the crops of birds, &c., which, after having been rejected or laid in the water, may spread species to a certain extent, the great mass of facts can hardly be explained in this way, unless by a very great stretch of credulity.

We can only refer to this paper* by Agassiz, where many instances are adduced, which show that animals have originated primitively over the whole extent of their natural distribution, and in large numbers; and that the same species may have a multiple origin, as is shown by the lions in Africa, the fishes of the Rhine, Rhone, and Danube, &c. Is it not, then, equivalent to making physical influences more powerful than the Creator, to trace all animals from a common centre, and to trust the production of animals to a *single pair*, exposed to innumerable accidents from climate and the attacks of other animals? In the words of Agassiz,† "The view of mankind as originating from a single pair, Adam and Eve, and of the animals and plants as having originated from one common centre, which was at the same time the cradle of humanity, is neither a biblical view nor a correct view, nor one agreeing with the results of science; and our profound veneration for the Sacred Scriptures prompts us to pronounce the prevailing view of the origin of man, animals and plants, as a mere human hypothesis, not entitled to more consideration than belongs to most theories formed in the infancy of science."

Considering, then, the climatic varieties of man as primitive,

* Christian Examiner, March, 1850. † Ibid.

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the question of the plurality of races is converted into the question whether these varieties are *species*.

That men are nearly related, physically and mentally, is no reason why a community of origin should be claimed for them; we have the same near relations among animals, for which community of origin has never been claimed. For instance, the carnivora all agree in peculiar teeth and claws for seizing their prey; in a short alimentary canal for digesting animal food; in their savage and unsocial dispositions; constituting a natural unity in the animal kingdom, entirely different from that of the quadrumana, ruminantia, &c. But for all this, who ever derived the wolf, the tiger and the bear from a common stock? And yet they exhibit closer resemblance of dispositions then the different races of men. Common character does not prove common descent. The species of the genus *Felis*, so similar in habits and structure, were never supposed to be *one* and the same species; for the same reason, there may be different species of the genus *Homo*, as far as this argument is concerned.

Van Amringe,* speaking of the incompleteness and obscurity of the Mosaic account of the creation of man, asks, whence came Cain's fear that some one, finding him, should slay him, if the only persons living, at the death of Abel, were Adam, Eve and himself? and why the reply of the Lord, that "whosoever slayeth Cain, vengeance shall be taken on him sevenfold?" and whence the necessity of putting a mark on him? Surely his father and mother, and their descendants, would not have killed him. The departure of Cain, his marriage, the birth of his son Enoch, and his building a city, took place before the birth of Seth, the next human being, according to Moses. The intermarriage of the "sons of God" with the "daughters of men" was the cause of the wickedness punished by the flood. There were also "giants in the earth in those days," who "cannot be referred to Cain as their progenitor, because four generations from Cain are mentioned, among whom there were no giants; and these are sufficient to cover the whole intermediate time" to the epoch of the flood. [p. 57.] All these point to a race of men independent of Adam. Even though all the descendants of Adam, except Noah and his family, had perished in the flood, there may have been other men, in parts of the earth not reached by the

* Outline of a New Natural History of Man, founded upon Human Analogies. By W. F. Van Amringe. New York, 1848.

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Noachian deluge, who escaped. Those who wish to satisfy themselves on the limited extent of the deluge, may consult with advantage the work of Dr. John Pye Smith, "On the Relation between the Holy Scriptures and some parts of Geological Science."

The fact that so many learned men continue to attribute the varieties in animals to climate, food, and other external circumstances, and the various human races to the same causes, can only be accounted for "on the supposition that they believe the subject to be settled by revelation in its results; and that, however contrary to it the facts may appear, they must be made to conform to it in their conclusions;" this, continues Van Amringe, is a perverse disregard of the inductive method of philosophizing, "more particularly as, from our knowledge of the various nations of the globe, all the known facts are decidedly against any such theory." That animals change to a limited extent, we know; that man thus changes, we do not know; and that he must so change is based solely on analogy. The human constitution has a remarkable power of adapting itself to climate, which animals have in a less degree; in the latter we expect change, in the former we do not expect it, and have never seen it; there is no analogy, in this respect, between man and animals.

As regards the changes produced by food, there is no analogy between animals and man; the former, in domestication, usually depend upon a single article, as grass; while omnivorous man, if he cannot get meat or vegetables, can fall back upon "train oil, spiders, serpents, or ant eggs." If the supply fail for the former, changes will ensue, against which man is better protected. The Jews are a remarkable proof that climate and mode of living do not change human races to any great extent; wanderers in every land, they are now as distinct as they were two thousand years ago; the unmixed Jew is recognized at a glance.

Prichard and his followers allow that, with few exceptions, the varieties of domestic animals, if left to themselves, show a tendency to return to a supposed primitive type. The difficulty of keeping up any particular breed of pigeons or rabbits is well known; sheep continually show a tendency to return to the dark color of the wild mouflon; "black sheep annoy the farmer by appearing in the midst of the most carefully-bred flock." It requires continual care to prevent even the dog, the most modified perhaps of all animals, from degenerating. That time alone does not alter species is proved by the mummies of animals found in the catacombs of Egypt, and the representations of species, identical with the existing ones, on the walls of the temples and the outer cases of human mummies. (Martin, op. cit.)

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The color of the human skin is not regarded as of so much importance as it formerly was; though no sufficient reasons are given. In every animal but man, color, when transmitted from generation to generation unchanged, is considered of specific value. It is said, though without any facts to sustain it, that climate insensibly produces the change of color with other physical changes. If climate can change a white into a black man, producing what we claim generally as a specific distinction, what difference does it imply to admit the general doctrine of Lamarck "that the vast variety of organisms were produced by the operation of laws, by development, and not by direct creation?" There is no reason why we should not insist on the specific value of color in man, at least to the same extent as we admit it in animals. Says Van Amringe, "The moral question of universal brotherhood and its consequent obligations is not affected by making the permanent differences, acknowledged by all to prevail in the different races of mankind, to owe their origin either to the direct or indirect agency of our common creation."

M. Flourens considers the color of the skin more characteristic of distinctness of species than any other peculiarity; but, though we may accept his conclusions, (for reasons which will hereafter appear,) he probably labored under an error in assuming the existence of a peculiar membrane in the Negro skin, which is entirely wanting in the white races.* Allowing, with Henle and Simon, that the skin is not composed of continuous membranes, but of layers of cells; of epidermic cells, among which are interspersed the pigment cells on which the color of the skin, hair, and eyes, depends; the fact that the microscope was necessary to discover the rete Malpighii in the white races, while "in the dark races it has long been known, and is easily discoverable, and separable by maceration, without a microscope, and that it increases in thickness in the descending series of species, until, in some Negroes, it is thicker than the cuticle," is sufficient to show that the functions of a skin, so differently proportioned in the various races, may be considered specifically adapted to the circumstances under which the several varieties of man were formed to live.

Microscopic examination has proved that the hair of the Negro is

* "The uniform color," says Lawrence, "of all parts of the body is a strong argument against those who ascribe the blackness of the Negro to the same cause as that which produces tanning in white people; namely, the sun's rays. Neither is the peculiar color of the Negro confined to the skin; a small circle of the conjunctiva, round the cornea, is blackish, and the rest of the membrane has a yellowish brown tinge."

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not "wool," but at the same time has shown that it is of a very different texture from that of the white races. There is an actual difference in the structure of the hair in the different races; and this difference does not depend on the color, for the black hair of the Negro is not at all like the equally black hair of the European. The hair of the Albino Negro, "whether red or flaxen, is as knotty, as wiry, and as woolly, as that of his sable parents." The closest curls of the European head never approach the short wiry hair of the African, unless the races have been mixed; and it should be recollected that such a single mixture may have an influence for several generations.

Are, then, the differences which characterize the several races of men analogous in kind and degree to those which distinguish the breeds of domestic animals? And are they to be accounted for on the same principles?

It is maintained that the effects of domestication on animals and the effects of civilization on man are analogous. This supposes that the original condition of man was wild like that of animals; that he emerged from this condition, became domestic, and domesticated certain animals with the same results for them as for him. All these suppositions are necessary, and all have been taken for granted, and used accordingly. That civilization has not produced physical changes in man, the authors themselves admit, when they refer this or that ancient skull to the Caucasian or Ethiopian race, according to its characters, which implies permanence of the distinguishing marks. This is proved by all history; by the monuments of Egypt, which show that 4000 years of civilization, at any rate, have not changed man. Says Van Amringe, "If it could be proved that a mouse changed to an ox by domestication, we imagine that it would be insufficient to prove that man suffered physical change by civilization, in opposition to undoubted records to the contrary."

Man is the most domestic of animals; domesticity is in him "a natural instinct, a law of his being, a principle upon which all of his virtues, all of his civilization, all of his progress in this world, depends;" but domestication in animals, far from being instinctive, or a law of their nature, is "a violence done to them, a tyranny exercised over them; it is a slavery so absolute and perfect that their very natures are subdued, and their natural instincts, as far as opposed to man's interest, blunted and overpowered." Their tempers are modified, their bony structure even is changed, by an unnatural climate, food, and management. *Improvements* in domesticated animals are *degenerations* in regard to the animals themselves. The difference between the skulls of the wild boar and the domestic

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hog is constantly adduced, as analogous to the differences between the Caucasian and Negro cranium. But look at the cause of change: the wild animal is confined in a sty, where his natural instinct of rooting in the ground, for which his head is especially adapted, cannot be exercised; the powerful muscles attached to the nose not being called into play, the bones to which they are attached, by a physiological law, are modified accordingly. Civilization, on the contrary, places man in a position where his natural powers are more advantageously exercised and increased. Domestication in animals is a life of unnatural constraint and real degeneration. There is not only no *analogy*, but not even the slightest *resemblance*, between them; and, consequently, physical differences dependent thereon cannot be considered analogous. If the physical changes of domestication are analogous to any physical changes of man, it must be of *civilized* man, according to their analogy; but we have seen that civilization does not physically change man; and, moreover, where would be the analogies of the *savage* tribes of the greater part of our globe, among whom exists the only difficulty to be explained?

Neither are the moral and intellectual qualities of man analogous in kind and degree to the qualities of domestic animals. Dr. Prichard talks about "psychological characteristics" of animals, as if they had such. Animals have but a *single* nature, a *bodily* nature, depending on, and connected with, their external senses; man has, in addition, a *spiritual* nature, connecting him with eternity, which animals have not. Animals have no *moral* nature. Man is, also, a *progressive* being, and must therefore have an *intellectual* element, capable of improvement. Animals are created perfect, with *instincts* capable of no improvement; animals have no *intellectual* nature; animals of themselves never improve; man improves of himself, from a law of his nature.* In any view, therefore, animals furnish no analogies with man, in either physical, moral or intellectual prop-

*Prichard's theory required that animals should be the analogues of men, and it was therefore necessary to raise animals, or sink man to their level. By merely substituting the word "psychological" for "instinctive" characteristics, says Van Amringe, he raised the whole animal kingdom to the required level. He thus got related the psychology of animals and man, "without the trouble of philosophically accomplishing so impossible a thing;" and thus obtained "a specious right to use bees and wasps, rats and dogs, sheep, goats and rabbits, in short, the whole animal kingdom, as human psychical analogues, which would be amazingly convenient, when conclusions were to be made."

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erties, which can be legitimately used to assist in the natural history of mankind.

This doctrine, that the varieties of man have arisen from native or congenital varieties, "rests entirely," says Van Amringe, "upon supposed analogy, in this respect, between domestic animals and man." This doctrine would never have been adopted in any country but England, where the breeding of domestic animals has been carried to such perfection. But even here the analogy fails; every breeder knows "that an improved animal has a greater tendency to defect than to perfection;" there is a constant tendency to deterioration. The varieties of domestic animals are produced only by the greatest skill and perseverance, and are only preserved by the utmost care in feeding and general management. "Breeding in and in, closely, constitutes a kind of hybrid race, by enervating the procreative power. Thus the highly-bred new Leicester cattle were speedily extinguished." How different in the case of the human races! Such precautions never have been taken; yet, to make out any analogy, they ought to have been observed. How, then, can it be inferred, from analogy, that an accidental human variety might have become permanent without the slightest care? If it be said, with Mr. Lawrence, that the Negro and the European are the two extremes of a very long gradation, with innumerable intermediate stages, it may be replied, there is no such gradation in domestic animals, whose colors change by very sudden degrees, as it were by leaps; here analogy fails again. How came it, too, "that some of these changes were arrested in their intermediate stages, while others proceeded to an extreme black?" History reaches far back towards the flood, yet makes no mention of such changes in man.

Too much importance has been attached to individual examples, by which almost any extravagance might be sustained. It has been too hastily inferred from the "porcupine men," and such congenital monsters, observed for a short period only, that accidental varieties may account for the differences of the human races.

Authors have not agreed as to what is a species; each one defining it to suit his purpose. To Prichard's definition is attached what he calls a "permanent variety," which differs from a species in the changes not being cöeval with the tribe. Though a most important point, it is, on his part, a mere assumption, for he does not mention a single fact in support of it. Showing that domestic animals change, and that they differ from each other as much as man does from man, neither proves any relation between them, nor

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that such diversities have arisen in man *since his origin*, and constitute a deviation from his *original* character.*

Taking Dr. Morton's definition of species "*a primordial organic form*," which implies a uniformity of anatomical and physiological organization from the beginning, let us see if any specific differences can be made out in man, on as good grounds as in other animals. Owen (Van Amringe, p. 263) gives twenty-three differences between the orang-outang and the chimpanzée, which were long regarded as one species; only four of these are instances of really distinct structure, viz., an additional pair of ribs, a single instead of a double series of bones in the sternum, the non-division of the pisiform bone of the wrist, and having two phalanges in the great toe, with a nail. The other differences relate to shape, length and persistence of parts; but, as function follows organization, and all the habits and instincts of the animal depend upon it, these differences were considered of *specific* value.

Van Amringe (p. 268) gives the following osteological points in which the Negro differs from the Caucasian: 1. The cranium is compressed laterally, elongated towards the front, retreating from the superciliary ridges, and smaller in proportion to the face. 2. The frontal and parietal bones are less excavated and less capacious. 3. The temporal ridge mounts higher, nearly to the top of the head. (To this may be added the peculiarity mentioned by Prichard in the Ashantee skull, that the sphenoid bone does not reach the parietal bone.) 4. The temporal fossa and zygoma are larger, stronger, and more capacious. 5. The cheek-bones project more, and are stronger, broader and thicker. 5. The orbits are larger, especially the external aperture. 7. The *ossa nasi* are flatter and shorter, and run together above into an acute angle. 8. The plates of the *ethmoid* bone are more complicated, and the cribriform lamella more extensive. 9. The jaws are larger and stronger, the alveolar incisive portion projecting. 10. The chin is receding and rudimentary. 11. The foramen magnum and occipital condyles are in a more backward position. 12. The skull is heavier, and denser, and harder, particularly the sides. 13. The fore-arm is proportionally longer. 14. The hand and fingers are proportionally narrower and longer; (according to Agassiz, the fingers are more webbed.) 15. Sesamoid bones are general; rare in the Caucasian. 16. The pelvis is longer and narrower. 17. The femur, tibia, and fibula, are more

* Variety implies want of permanence, and a tendency to return, sooner or later, to the original type; and we know of no animals, *permanently* distinct from others, which can be undoubtedly traced to the same original source.

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convex, or gibbous. 18. The femur and tibia are so articulated, that the knees are generally thrown outwards. 19. The os calcis, instead of forming an arch with the tarsus, is horizontal, (the posterior portion longer,) and the foot flat.*

These variations in structure imply variety of function, habit and powers. Psychical powers may be greatly influenced by slight anatomical differences; "so slight as to be scarcely appreciable by the anatomist, and yet confer a character upon the beings more widely different in every respect, than all the thumbs, tails, cheek-pouches, and callosities in the monkey family." We must not disregard them, simply because they pass gradually one into the other; for this we have seen is true of the whole animal kingdom, which is certainly not *all one species*.

Difference of *form*, if constant and uniform, is of *specific* value, for it implies a difference of means to attain the same end.

Difference of *color* is of no less value in defining species in animals. "The lion is not more regularly tawny, the tiger more regularly streaked, nor the leopard more regularly spotted, than the several races of men are uniformly distinguished from each other by their colors."

Difference of *hair* has been sufficiently alluded to; being permanent in the respective races, it is of specific value.

We see mankind confined to distinct localities, with permanent distinctions of form and color; with different social relations, religion, governments, habits and intellectual powers; the same from the remotest historical time. The psychical differences among men are as great as usually form specific differences in animals. In the Caucasian nations, generally, we see the rights of woman acknowledged and established; enlightened governments, just laws, a rational system of religion, commerce, agriculture, art and science in the highest known perfection. In the Mongolian races, woman is a slave, an article of merchandise, government despotic, religion idolatrous, laws unjust and bloody, commerce, agriculture, in a low state; all the arts of life little advanced, and stationary for ages. In the American races, the state of things is worse still; and in the African, at the lowest point. If it be said that these are the results of education and circumstances, a difference of capacity must still lie at the bottom. The causes which have produced these results "operated in full force anterior to profane history, and have never since varied; consequently, the naturalist may fairly take it for granted that they are natural causes, until the contrary is

* And, according to Dr. Knox, the nervous system, and every muscle of the body is different.

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proved by something more than a mere speculation, or presumption, that they are accidental."

The constitutional temperaments of the different races, on which the author just quoted lays so much stress, seem to measure their capacity for improvement. There is every variety in the white races; while the other races are noted for a great apparent uniformity, so that to have seen one of a race, you have seen the whole. The dark races have a less nervous sensibility than the white. Dr. Mosely (Treatise on Tropical Diseases) says, "Negroes are void of sensibility to a surprising degree. They are not subject to nervous diseases. They sleep sound in every disease, nor does any mental disturbance ever keep them awake. They bear chirurgical operations much better than white people; and what would be the cause of insupportable pain to a white man, a Negro would almost disregard." The American dark races bear with indifference tortures insupportable to a white man. Is it not possible, says Van Amringe, that the increased coloring matter in the skin protects the subjacent nerves to a greater extent against external impressions? He states, on what he considers good authority, that the Negro expires less carbonic acid than the white man. "Hence Africans seldom have fetid breath, but transpire the fetid matter, somewhat modified, chiefly by the skin." This would explain the greater amount of oily substance with which the black skin abounds, by concentrating in the integument a larger quantity of carbon, the chief element of the fixed oils.*

Dr. Prichard thinks that the liability of all the races to the same diseases is an evidence of identity of species. Everybody knows that some races are more liable than others to certain diseases. The torpidity of the blacks under disease is well known to physicians who have practised much among them; the Negroes are more exempt from nervous diseases and the yellow fever, but more subject to the "*yaws*." If we regard all men of one species, simply because they have the same diseases, we shall have to include the monkeys, cows, horses, dogs, &c., in the human family, for they have consumption, vaccine disease, glanders, hydrophobia, &c. It is known that epi-

*It has been ascertained, abundantly, in the East, (according to Dr. Allen, "on the Opium Trade,") that the effects of opium on the Negro and Indian appear rather on the digestive, circulating, and respiratory functions, than in the cerebral and nervous system; in the whites and Mongolians, it acts more directly on the mind, though its effects on the body are not lessened; this accords with the alleged inferior development or sensibility of the nervous system in the dark races.

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demics have, from the earliest ages, equally affected men and animals; the causes, the symptoms, the pathology, the treatment, are the same in epidemics and epizootics. This shows, not that men are of *one* species, — if it does, animals belong to the same species as man, — but that men are of *different* species; since some races are very liable to certain diseases from which others are almost exempt.

Van Amringe considers that the relations between male and female point to specific distinctions in the human races. If we go back to the remotest historic period we find that the condition of woman has always been higher in proportion to civilization: the white races have always manifested a tendency to honor and esteem woman; the dark races have always considered her rather as a slave than as a companion and equal. The prevalence of this rule in species, taken as a whole, from the earliest times and under all modifying influences, indicates a natural difference of mental constitution or temperament; education has modified, but can never change it. The standard of beauty is different in the various races, physically, morally, and intellectually; and this difference of taste has been one of the chief means of keeping distinct the different species of men.

It was thought by Buffon, Hunter, and others, and is generally believed at the present day, that the offspring of two distinct species are incapable of reproducing their kind; thus *hybridity* has been made a test of specific character. By some, hybrids are considered as affording the strongest proofs of the reality and distinctness of species; by others, they are thought to show that all the present varieties of animal and vegetable life were derived from a comparatively few original types. Assuming it to be a law of nature that hybrids are *sterile*, it is maintained that all mankind must belong to one and the same species, since all the races are capable of producing a fertile progeny with each other. Dr. Morton* has examined this subject with great care, and has collected a great number of authentic facts of hybrids producing fertile offspring, in mammalia, birds, fishes, insects, and plants. In the higher animals, he gives examples even from different *genera*. In birds, they are very numerous, especially in the gallinaceous tribes. In plants, they are so common that Mr. Herbert maintains that *botanical species* are only a higher and more permanent type of *varieties*, and he would discard them altogether, retaining only the *genera* to designate those characters which have hitherto been attributed to *species*. It thus appears that *mules* are

* Hybridity in Animals and Plants, considered in reference to the question of the Unity of the Human Species. By S. G. Morton, M. D. Philadelphia.

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not always *sterile*, even in a state of nature. Still, it must be observed that hybridity is much the most common among *domesticated* animals, and that the capacity for fertile hybridity is in proportion to the aptitude of animals for domestication.

Dr. Bachman (as has been seen before) rejects the authorities of Dr. Morton, as unworthy of credit; among which authorities are Buffon, Temminck, Hamilton Smith, Cuvier, Chevreul, &c. In subsequent articles* Dr. Morton gives additional reasons for his positions in regard to hybrids. Respecting hybrids of the sheep and goat, the facts of M. Chevreul were fully admitted by Buffon and Cuvier. The dogmatical assertion that the camels are both of one species, and the quoted authority of Buffon in support of it, merit no attention, since Buffon's opinion was founded solely on the fact that the camel and the dromedary produced a fertile offspring *inter se*. In Layard's plates of Nineveh are represented the camel and the dromedary as distinct as they are now; this dates as far back as 2600 years before Christ. There can be no doubt that the wolf and the dog copulate voluntarily, and that races have been formed in this manner. No one will probably pretend that all wolves are of one species, even though they maintain that the dogs are, and that the latter are the descendants of the former. Hybrids between the horse and ass are well known to be sometimes prolific. As to hybrids in *birds*, we need only mention the hybrid grouse, (Tetrao medius,) which is very generally admitted to be the mule-bird produced by the wood-grouse (T. urogallus) and the black grouse (T. tetrix). This is now the opinion of Temminck, who is "good authority" in ornithology; he confesses that he no longer regards it as a true species, in a work published ten years ago, though Dr. Bachman claims Temminck as showing the contrary.

Great confusion has resulted from the habit of regarding hybridity as a *unit*, whereas its facts may be classified like other series of physiological phenomena. Dr. Morton makes *four degrees* of hybridity. 1st. That in which the hybrids never reproduce, the mixed offspring ending with the first cross; this is the case with almost all domesticated birds, however different their generic relations. 2nd. That in which the hybrids are incapable of reproduction, *inter se*, but multiply by union with the parent stock; this is the case with the species of the genus Bos. 3d. That in which animals of unquestionably distinct species produce a progeny prolific *inter se;* as the wolf and dog, and other species of the genus canis. 4th. That

*Letter to Rev. John Bachman, and Additional Observations on Hybridity in Animals. Charleston, 1850.

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which takes place between closely proximate species, as among mankind and the common domestic animals essential to his happiness.

According to Mr. Eyton, (Proceedings of Zool. Soc., London, Feb. 1837,) the offspring of the Chinese hog and the common European hog are prolific *inter se;* now these animals differ from the wild boar, and the French hog, in the number of the vertebræ as follows: 50, 55, 45, and 53. To say that these are all domestic varieties of one species is allowing too much to the semi-domestication of these animals. It is much less difficult to believe with Hamilton Smith (on Canidæ) that this is "a case of providential arrangement for a given purpose, and that there are three, if not four, original species (including the African) with powers to commix." (p. 94.)

The extent of the argument that can be drawn from the phenomena of hybridity as regards *man*, is (as Temminck has remarked of *birds*) "that the occurrence of the prolific offspring between the different races shows that there is a *near affinity* between the species."

We shall conclude this abstract by a few remarks in favor of the diversity of the human races, drawn from various sources of modern date, expressing our own opinion from a careful study of the phenomena, and from personal observation.

Those who maintain the *one-pair* theory deny the *permanence* of races, and place great stress upon the capacity for variation in animals, and therefore in man; and, when difficulties arise which cannot be explained by the usual causes, they invoke the aid of *spontaneous* variation and accidental generation.

Allowing for the moment that civilization in man and domestication in animals are analogous conditions, (which is of vital importance to their theory,) let us see what can be established in regard to changes produced by climate and external influences.

The capacity for variation is certainly great in our domestic animals, submitted as they are to various unnatural circumstances.

The most commonly used argument in this connection is furnished by the varieties of the *dog*, which are considered as belonging to one species. To say nothing, however, of the "petitio principii" here, in assuming the point wished to be proved, many eminent naturalists believe that there are several species of dogs. The objection of F. Cuvier that, "if we begin to make species, we cannot stop short at five or six, but must go on indefinitely," is of no weight; the most it can do is to show us the exceedingly vague meaning of the word species, and that we have not yet arrived at

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the true distinction between species and variety. The "permanent variety" of Dr. Prichard, from his own definition, is to all intents and purposes "a species." Says Hamilton Smith, (Naturalist's Library: on Dogs,) no instance can be shown "in the whole circle of mammiferous animals, where the influence of man, by education and servitude, has been able to develop and combine faculties and anatomical forms so different and opposite as we see them in different races of dogs, unless the typical species were first in possession of their rudiments." (p. 100.) Form and size may thus be somewhat changed, but climate cannot have effected much, as the two extremes are found in hot and cold regions. Food can do no more, since the man living on vegetables or fish retains his faculties as well as he who lives on flesh. Food or climate will not so widen or truncate the muzzle, nor raise the frontals, nor produce a light and slender structure, nor take away the sense of smell, and several other of the best qualifications of the dog, (as in greyhounds.) These qualities we cannot but consider as indications of different types, whose combinable properties have enabled man to multiply several required species. Ask sportsmen and breeders, who are led by inferences from their own observations, and do not follow the authority of high names; they will tell you the same. In absence, then, of positive proof, we have every reason to doubt that the differences of domestic dogs can be referred to a single species, and especially that the *wolf* is the parent stock. There are, indeed, several species of wolves, which might come in for a share of the paternity of the dogs, which would hardly be in favor of the latter being varieties of a *single* species, unless some one will venture to point out the exact species of wolf. If it be said there is only one species of wolf, then it is useless to quote animal analogies, for there is no such thing as a species in animated nature; and we might as well adopt Lamarck's or Monboddo's development theory at once, from which such views as are maintained respecting the varieties of dogs are not very distant. The influences which could change, without intermixture, the bull-dog into the greyhound, might well change a White into a Negro, or a monkey into a man. We must admit several aboriginal species, with faculties to intermix, including the wolf, dingo, jackal, buansu, anthus, &c., as parents of our dogs; that even the dhole or a thous may have been the parent of the greyhound races; and that a lost or undiscovered species, allied to Canis tricolor or Hyæna venatica, may have been the source of the short-muzzled, strong-jawed mastiffs. Smith, moreover, classes the dogs according to their apparent affinities with wild originals in neighboring latitudes, — the Arctic dogs with the wolves; south of

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the Equator there being no wolves, he refers the dogs in the Old World to the jackal, &c., in the New World to the Aguara fox dogs.

We have been thus particular on the subject of the dogs, as they have been triumphantly appealed to as arguments in favor of the unity of the human races; they certainly show little positively in favor of this view, and much negatively against it.

But, even among animals, there is a very great difference in their capacity for variation, which renders any argument that might be drawn from them of little value. The mouse, for instance, shows very little disposition to change, in color or form; the brown rat of Persia, now spread over the world, very nearly preserves its original type. According to Dr. S. G. Morton, (Proc. Acad. Nat. Sciences, Phil., April, 1850,) the reindeer of Lapland do not change in the slightest particular after long domestication; the peacock has not varied for thousands of years. Some animals, in two or three generations, are entirely changed in color, as the Guinea-pig and turkey; sometimes even the anatomical structure changes, as in the pigeon, sheep, and dog; some animals, even in the *wild state*, undergo great changes, *e. g.*, the fox-squirrel, (*Sciurus capistratus*,) whose black variety is not to be confounded with the unchanging *Sciurus niger*. The tiger is the same in tint, under considerable variety of climate, from Siberia to Ceylon. In the province of Delhi, Bishop Heber saw a shaggy elephant; he says that in one or two winters dogs, and even horses, brought from Europe, become woolly in that region, whose men are remarkable for the length and straightness of their hair. Dr. Morton also remarks that the wool of sheep becomes long and hairy in Guinea, where human hair is wiry and twisted. So that the causes which change the lower animals, do not affect man. In this respect one animal is not an analogue even for another animal, still less is an animal an analogue for man.

If the races of man are analogous to the varieties of animals, why does not *he*, under similar circumstances, tend to a uniform type? Why do not these varieties occur before our eyes among *civilized man*, who has been called the most *domestic of animals?* and the more *frequently* as civilization, with its many unnatural accompaniments, makes *progress?* The capacity for variation may explain *temporary* varieties of men and animals, but it cannot account for the *permanent varieties*, or *species*.

The characteristics most relied on for the discrimination of the races are the color of the skin, the structure of the hair, and the conformation of the skull and skeleton. There are several evident *types* of these marks in the races; the transition, however, is so

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gradual from one to the other, that it is impossible to draw the *exact line* of demarkation; therefore, say the advocates of the one-pair theory, the varieties of man may belong to one species. But we know that this same gradation is seen throughout the whole animal and vegetable world.

There are many animals intermediate between the orders, families and genera of the Vertebrata, — between mammalia and birds, between birds and reptiles, between reptiles and fishes, both living and fossil — which require all the acuteness of the experienced naturalist to class exactly. Many flowers, known in their *typical* forms to belong to different *species*, can hardly be distinguished in their *varieties;* the same plant has borne flowers formerly considered characteristic of three distinct *genera*.

This will be rendered of more importance if it appear that the races are permanent, and that color is not dependent on climate. Seven hundred and thirty-three years after Noah's debarkation from the ark, (to follow the generally received chronology,) a nation of blacks occupied the borders of Egypt; now, if these were Negroes, (as they doubtless were, for we have their features on the monuments,) for the last two thousand years climate has not produced such a race, as, according to this idea, must have been produced in a third of that time. Seventeen hundred years ago a colony of Jews migrated to the coast of Malabar, and settled among black races. Dr. Buchanan, in his travels, states that they are as perfect Caucasians as ever.* If, then, seventeen hundred years has not changed these people, in that hot climate, is it probable that seven hundred and thirty-three years have changed a white man into a Negro? A Portuguese colony, which settled on the coast of Congo, has now become lost by amalgamation with the black races; but, by a suppression of a part of the facts, the impression has been given that they were changed into Negroes by the effects of the climate, while the true cause of their extinction was the intermarriage of a few whites for fifteen generations among a large body of blacks. Yet this, and such as this, has been adduced as a proof that climate changes races. The Moors have inhabited Northern Africa from time immemorial, and yet they have made no approach to the Negro, any more than the Negro has to them. The American Indian, under

* There are white Jews in Malabar; where they are black, an intermixture with dark races may be traced. This fact is carefully kept out of sight by those who wish to use the "Black Jews of Malabar" on the other side of the question. [Dr. Nott; Proceedings of Am. Association for Adv. of Science. Charleston, 1850. p. 98.]

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every variety of climate, has very nearly the same shade of complexion; no other races have been produced there; there are no woolly heads, no Negro features. It is now about two hundred years since Africans were introduced into this country, and the eighth generation, where they have not been *mixed* with the whites, are as purely African as their imported ancestors; even in Massachusetts, where they have been somewhat improved by the most favorable circumstances, the real characteristics of the race are unchanged. The Jews have been a permanent race, from Abraham to the present time, a period of nearly four thousand years, according to Hebrew chronology; and, for still stronger reasons, from him up to Noah, only ten generations. The Gypsies are a permanent race, preserving their East Indian characteristics in all places, and for all historic time.

It may, then, be fairly said, that *unmixed* races, from the most remote historical time, (nearly 4,000 years,) have preserved their distinguishing marks amid all the supposed causes of change, and may be considered *permanent*. The Ethiopian (Negro) can no more change his skin than can the leopard his spots.

As examples of change of color in animals from external circumstances, and as proofs that similar causes may have produced similar effects in man, Dr. Prichard mentions the black swine of Piedmont, the white ones of Normandy, and the red ones of Bavaria; and instances also of horses and dogs, in Hungary and Corsica. If physical changes so change the lower animals, in these countries, why do not they change man? Why are the animals so different, and men so much alike? Man must be proof against these physical causes of change in animals. This is another instance of the abuse of analogy.

We find, then, the *same* race occupying *different* regions, preserving the same characters in all; and *different* races in the *same* climate, preserving unchanged their national distinctness; and no instance can be produced of *climate* having changed, or now changing, one race into another.

The quantity and structure of the human *hair* is very different in the different races. The Mongolians and Northern Asiatics are remarkable for the deficiency of hair and beard. The same is true, to a less degree, of the American Indians. Blumenbach would have us believe that the habit of pulling out the hair, continued for many generations, has at length produced this natural variety. Other nations have hair growing down the back, and covering nearly the whole body. This, probably, he would explain by the long continued application of some rude "Philocome," or "Tricophorus." On this principle, we should hardly expect that Chinese mothers would bear children

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having feet of the usual European dimensions. Very remarkable heads of hair are frequently produced by the intermixture of different races, as in the Cafusos of Brazil, — half-breeds between the Negro and Indians, — and in the Papuas. The microscope has proved that only those kinds of human hair which are *straight* approximate to the *cylindrical* form; and that the curled or crisp varieties are more or less flattened, the crispation being in proportion to the compression. Even the straightest hair is not exactly round, and in some cases a little longitudinal groove may be seen. The hair of the Negro has a deeper groove, and its transverse section has been compared to the form of a *bean*. It is probable that the twist of the Negro hair is connected with a greater tension of the fibres along this groove, as each hair is an assemblage of innumerable minute parallel fibres. The hair of the Bushman is more minutely curled and closely matted than the Negro hair; and under the microscope appears quite flat and ribbon-like, four or five times as broad as it is thick; with no groove, but very delicate parallel striæ or fibres.

Mr. P. A. Browne, of Philadelphia, has communicated to the American Ethnological Society an Essay on "the classification of mankind by the hair and wool of their heads," in which he replies to Prichard's assertion that the covering of the head of the Negro is *hair* and not *wool*. He states that there are, on microscopic examination, three prevailing forms of the transverse section of the filament, viz., the cylindrical, the oval, and the eccentrically elliptical. There are also three directions in which it pierces the epidermis. The straight and lank, the flowing or curled, and the crisped or frizzled, differ respectively as to the angle which the filament makes with the skin on leaving it. The cylindrical and oval pile has an oblique angle of inclination. The eccentrically elliptical pierces the epidermis at right angles, and lies perpendicularly in the dermis. The hair of the white man is oval; that of the Choctaw and some other American Indians is cylindrical; that of the Negro is eccentrically elliptical or flat. The hair of the white man has, beside its cortex and intermediate fibres, a central canal which contains the coloring matter when present. The wool of the Negro has no central canal, and the coloring matter is diffused, when present, either throughout the cortex or the intermediate fibres.

Hair, according to these observations, is more complex in its structure than wool. In hair the enveloping scales are comparatively few, with smooth surfaces, rounded at their points, and closely embracing the shaft. In wool they are numerous, rough, sharp-pointed, and project from the shaft. Hence the hair of the white

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man will not felt. The hair of the Negro will, and in this respect comes near to true wool.

Prichard says, supposing the Negro hair to be analogous to wool, it would not prove the Negro of a separate race from the European. "Since we know that some tribes of animals bear wool, while others of the same species are covered with hair." Though this peculiarity depends on *climate*, it proves nothing, for this reason, viz., in almost every quadruped there is a growth of both *hair* and *wool*, the *latter* generally covered and protected by the *former*. Now, *climate* only changes the relative *proportion* between these two appendages to the skin. In a *warm* climate the *hair* would predominate; in a *cold* country the *wool* would be the most increased. This may explain Prichard's remark. Until a similar coëxistence of hair and wool can be shown in the human subject, there is not the slightest ground for analogical argument.

From the examination of the human hair, it may be said that the degree of relationship of the races is no nearer than that of allied species among lower animals, even allowing much that false analogy claims. The hair of man belongs to the same epidermic tissues as the fur of quadrupeds, the feathers of birds, and the scales of fishes. The species of *birds* are in a great measure distinguished by the form, structure, and arrangement of the *feathers*. The *scales* of *fishes* have such an intimate and unvarying relation to their other organs and systems, that Prof. Agassiz has been able to delineate accurately the form and structure of an extinct species from the examination of a single scale; and the classification of these animals is chiefly made according to the structure of the scales. If such differences in animals constitute *specific* and even *generic* distinctions, why not, by analogy, in man?

The osteology of the different races of men has been as yet very little studied, and offers a wide field for observations. The characteristic shape of the skull in different races has been already given, and need not be repeated. The distinctions are remarkable and permanent, and cannot be invalidated by the "scale of gradation," so often quoted, as this would apply with equal force to all animated nature. A prevailing form, a type, exists, and that is enough. A modification of the osseous system involves a modification of function, which may influence the whole system, and become of specific value. The chin, *e. g.*, says Van Amringe, is apparently an unimportant part; and yet a receding chin is almost always attended by a poorly developed cranium and inferior intellectual powers; not that there can be traced the relation of cause and effect, but that, all organs being a part of a great whole, a deficiency of one is almost without

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exception followed by the same consequences in the whole class of animals. The prominence of the chin (or its receding) is characteristic of races of men and animals, and is proportioned to the rank they hold in the scale of being. Again, the posterior portion of the os calcis is longer in the Negro than in the European. This enables the muscles of the calf of the leg to act with better advantage on the foot, the lever being better from the length of the heel. Less muscular force is required for the movements of the foot on the leg, in walking, &c., and hence the constant comparative flatness of the Negro calf, the size of a muscle being proportioned to its exercise. In an animal this would be considered of specific value. According to Dr. Knox,* in the colored races the nerves of the limbs are one third less than in the Saxon of the same height. He quotes Tiedemann as having informed him "that he had every reason to believe that the native Australian race differed in an extraordinary manner from the European; that this is the case with the Hottentot and Bosjeman race has been long known." He says, the whole shape of the skeleton in the dark races differs from ours, as also "the forms of almost every muscle in the body." We have already seen the great differences in the shape of the *pelvis* in the different races, to which Drs. Vrolik and Weber paid great attention, in the belief that its shape must have some influence on the conformation of the fœtal head. They discovered *four* principal forms, corresponding to the cranial formation of the principal races. The *oval* form of the European, the *round* form of the American, the *square* form of the Mongolian, and the *oblong* form of the African races. The last showing unmistakable signs of degradation, and an approach to the pelvis of the *Simiæ*.

It is highly probable that future investigations will detect other differences in the comparative osteology of the races, which will present strong claims to be regarded as *specific* distinctions

The diversity of the human races is by some attributed to accidental varieties, from whom individuals, tribes, and nations have sprung. If mankind were originally white, the negroes must have arisen from such an accidental variety. This, according to Dr. Morton, is Prichard's latest view. It is a mere supposition; for nobody ever saw or knew a Negro born as an accidental variety among Caucasian, Mongolian, or other races, where a very natural explanation could not be found for the mystery. Prichard, at one time, believed Adam was a Negro, 1st, from the changes of animals being from dark to light. 2d, from Albinoes occurring among

*The Races of Men; a Fragment. By Robert Knox, M. D. London, 1850.

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blacks, but never blacks among whites. 3d, from the dark races being better fitted for savage life than the whites. 4th, from the lowest actual races being akin to Negroes. In his "Physical History of Man," he says, "The Melanic variety may be looked upon as the natural and original complexion of the human species."

It is a general law of nature that deviations from the natural type, accidental or the product of disease, have a constant tendency to return to the original type. For Prichard's reasons, above given, the white races are not the progenitors of the black races; and if the first races were black, we ought occasionally to find children of white parents born black, by reason of the natural tendency to return to the original type. The difficulty is the same in both theories. Again, all unnatural, accidental, or monstrous births, are either absolutely incapable of procreation, or they quickly die out, unless renewed by intermixture of the original stocks. This will be more fully treated when speaking of hybridity. It is equally vain to pretend that varieties were thus produced in *early ages*, before a crowded population existed to swallow them up, as would now be the case. No race of "hairy men" arose from Esau. To suppose that the sons of Noah had children, of exactly the colors required by this theory, who married women of a color exactly corresponding, is too great a demand on our credulity. To say, with Van Amringe, that the sons of Noah were changed by a miraculous interposition, so as to produce the varieties of man, is not allowable; for no one has a right to *suppose a miracle*.

Professor Agassiz instituted a series of experiments in 1850, which have a bearing on this point. He took a great number of rabbits, of every *variety* of color, and bred them together with great care; the offspring were never *intermediate* in color between the parents, but were either *exactly like* one parent or the other, or showed a tendency to the *gray* color of the *original wild stock*. But take different *species*, as the horse and the ass, and the offspring resembles *neither* parent, but is a *mule*, intermediate between the two. So, put black and white together, the child is neither *black* nor *white*, but a *mulatto*. The rare instances where children from such a union have been either perfectly *black*, or perfectly *white*, must be regarded as exceptions. So far as analogy can be trusted, the result of these observations shows that the human races are distinct species.

In hybrids, animal and human, there is a tendency to return to the original stocks. There is reason to believe that hybridity is, in man at least, a state of degeneration, and that the mongrel race must either keep itself up by continual mixture with

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the original stocks, or it will become extinct by reverting to the original types, or by ceasing to be prolific. Nobody doubts that mixed offspring may be produced by intermarriage of different races. The Griquas, the Papuas, the Cafusos, and the mulattoes of the Americas, so elaborately described and enumerated by Prichard, only show the existence of such races; and that the same causes which first produced them may continue to produce them. The point is, whether they would be perpetuated if strictly confined to intermarriages among themselves. It has been said, as the result of observation, that, when the descendants of mulattoes intermarry for a few generations, (without mixture of the primitive races,) the offspring either ceases to be prolific, or reverts towards the original stocks. The same is true, as far as has been observed, of the mixture of the *white* and *red* races.

In the Proceedings of the Academy of Sciences of Philadelphia, for April 22, 1851, is a communication from Dr. S. G. Morton, on the infrequency of mixed offspring between the European and Australian races. This well-known fact led the colonial government to official inquiries; and to the result that in thirty-one districts, whose inhabitants were 15,000 in number, the half-breeds did not exceed 200. Infanticide, disease, promiscuous intercourse, and the natural repugnance of races, would not explain the fact in Australia, when similar causes elsewhere are not followed by similar effects. "Is not," he asks, "the real cause of the *difference of race* the disparity of primordial organization?"

The strongest argument in favor of this is that no new variety of men has ever been thus formed and *perpetuated* by the mixture of races, though there has been no greater obstacle to the permanence of such races than of the existing pure races; we have a right to believe such a permanent race impossible till the contrary is proved. This conclusion is strengthened by the well-known consequences of intermarriage of near relations in civilized communities; every one conversant with the subject knows that scrofula, imbecility, and idiocy are to be traced to this intermixture as effects to their cause. History abundantly shows that artificial breeds, mixed races of men (and animals) are never permanent and self-supporting; they require supplies from the pure breeds, or they become extinct. Look at the Spanish conquerors of Mexico and Peru; the "Mulatto" (which means a mixed race) arose from the mingling of European and Indian blood. The supply from Spain has ceased; the native Indian continues, and upon him the Mulatto is forced; thus the population gradually returns to the aboriginal Indian type as in the days of Montezuma and the Incas. The same is true of the mixture of

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the Portuguese and Indian in Brazil and other parts of South America; as the foreign supply diminishes, the native blood predominates, and the mixed race decays. In St. Domingo, the black race predominates, and under the present regime there is no probability of any great supply of white blood to perpetuate the existing Mulattoes; the mixed race is gradually giving way, and must become extinct, becoming merged in the black stock.

The phenomena of hybridity, therefore, so far as they bear upon the question, rather go to prove that there are distinct species.

Mr. Gallatin (Trans. of Amer. Ethnological Soc., Vol. i., p. 192) gives some facts which show that the agriculture of the American mound builders was of domestic origin; their principal vegetable product was peculiar to America. He says, "We have here two leading facts, one positively ascertained, and the other generally admitted by those who have inquired into the subject, the importance of which has not, it seems to me, been adverted to. The first is that all the nutritious plants cultivated in the other hemisphere, and which are usually distinguished by the name of cereals, (millet, rice, wheat, rye, barley, oats,) were entirely unknown to the Americans. The second is that maize, which was the great and almost sole foundation of American agriculture, is exclusively of American origin, and was not known in the other hemisphere till after the discovery of America in the fifteenth century."

If animals have had several distinct centres of creation, why has not man? There are climates peculiarly suited to the varieties of man, as well as of animals. Tropical Africa is not adapted to the Caucasian constitution; every colony has been wasted by sickness and death; every expedition into the interior has been attended with a frightful mortality; even at a long distance from the unhealthy coast our national vessels have suffered severely from the pestilential fevers of Africa. Yet this is the *native* and the *natural* climate of the Negro, where he is as much at home as is the polar bear on the shores of Greenland, or the chimpanzée on the banks of the Gaboon. Look at the French colony even in extra-tropical Algeria; according to the reports of Marshal Bugeaud, and M. Baudin, the mortality among the troops is frightful; the European population annually decreases by seventeen per thousand, and, but for the influx of emigrants, would become extinct in fifty years. The dominant foreign population of Egypt does not increase in numbers; the aboriginal Copt still exists, biding his time. Look at the English in Hindostan and Australia. The former is held as a military possession; but the European cannot work there, — he must employ the natives; but for fresh arrivals the white man would soon be extinct

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as it is, he comes home to die prematurely, with gold in his pockets, and disease in his liver. In Australia, the Englishman with difficulty rears his children; he is in an unnatural climate, and must accordingly decay; he cannot be naturalized there. Finally, let us glance at America. Says Dr. Knox (op. cit.), "Travel to the Antilles, and see the European struggling with existence, a prey to fever and dysentery, unequal to all labor, wasted and wan, finally perishing, and becoming rapidly extinct as a race, but for the constant influx of fresh European blood." In Hayti, Cuba, Jamaica, and the other islands, a black population is necessary to labor. The sickly European must yield the tropics to the black race; he cannot fight against the climate. So will it be in our Southern States and Brazil; white men cannot labor there; the black man must be there, either as free or slave, so long as the Anglo-American or European resides there. Cut off fresh arrivals of whites from the north or from Europe, and, as in Hayti, the negro race will soon predominate, and, "with the deepening color, will vanish civilization, the arts of peace, science, literature." Look even at the Northern States. Contrast the lean, lank, lackadaisical Yankee with the ruddy, round, and robust Englishman, his ancestor. Says Dr. Knox, with truth, "The ladies early lose their teeth; in both sexes the adipose cellular cushion interposed between the skin and the aponeuroses and muscles disappears, or, at least, loses its adipose portion; the muscles become stringy and show themselves; the tendons appear on the surface; symptoms of premature decay manifest themselves." These are warnings that the climate has not been made for him, nor he for the climate.

It may now be asked if the species of man were created equal. We speak not of *individuals*, but of *races*. Many Caucasians may be inferior to many Negroes, or Mongolians, or Malays, and many individuals of talent may be found among the dark races; but they are acknowledged exceptions. The question is not whether a race may be improved, for that nobody doubts; else were they not *human;* but whether all have the same *capability* of being improved; and what the races are *naturally*, and what is the standard of the species.

History need not be very deeply consulted to convince one that the white races, without an exception, have attained a considerable degree of civilization and refinement; and that the dark races have always stopped short at a considerably lower level. There must have been a time when the Caucasian was as ignorant and uncivilized as the American or the African; all were once simple children of Nature, or while the former have advanced, the latter have

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degenerated from the original type of their species. Why have accidental circumstances always prevented the latter from rising, while they have only stimulated the former to higher attainment? The whole mass of facts leads to the conclusion that the dark races are inferiorly organized, and cannot, to the same extent as the white races, understand the laws of Nature, and therefrom obtain an ever-increasing light and knowledge; that they bear the stamp of their inferiority in their physical organization.

The North American Indian bears a stamp of inferiority in his physical and mental constitution; his nature shows a preponderance of the "vegetative element," as Guyot calls it; his temperament is lymphatic, cold, unsocial, insensible; he is the man of the forest, sombre and sad. The results of the mixture of the *White* and *Red* races for two hundred years are well known. The Indian civilization has not advanced permanently, or of itself; they will not give up their wild life for the restraints of civilization; they cannot, from their organization, be civilized. Like the wild animals of the forest, they retreat before the whites, contact with whom has nearly annihilated them as a race. Similar reflections arise in contemplating the *Negro* races. Amalgamation of races will not mend the matter. The inferior race will gain, for a time, what the superior loses; but return to one of the original types, or degeneration and final extinction, must sooner or later be the result.

Physical geography teaches us that, of the two great elements of the earth, the *water* element and the *land* element, the latter is by far superior to the former in the animal and vegetable life to which it gives origin; geology and palæontology show us that this was true also in ancient ages. The *oceanic* climate corresponds to a Flora and a Fauna numerous in individuals, but scanty in species; all the large animals are wanting; the types are inferior. In the *continental* climate there is greater variety, more numerous species, and higher types of life. But the highest of all life belongs to what Guyot* calls the *maritime* climate, the combination of the continental and the oceanic. To use his words, "Here are allied the continental vigor, and the oceanic softness, in a fortunate union, mutually tempering each other. Here the development is more intense, life more rich, more varied in all its forms." In like manner, we find the highest human types neither among the indolent man of the Pacific, nor among the energetic Negro of continental Africa, but in maritime man wherever found; whether it be in peninsular Europe, Asia, or North America, "enthroned, queen-

* Earth and Man: by Arnold Guyot. Boston, 1850.

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like, upon the two great oceans," "the mediator between the two extremities of the world." Physical geography also teaches, what history confirms, that the three great northern continents are peculiarly organized for the full development of man; they may be styled the *historic* continents, each having a special function in his education, and corresponding to the periods of his progress. Of the white race, the most perfect type of humanity, Western Asia may be called the *cradle*, both physically and morally; the dwelling-place of the chosen people, from whom Christianity was to spread over the earth. Europe "is the *school* where his *youth* was trained, where he waxed in strength and knowledge, and grew to a *man*." "America is the theatre of his activity during *manhood;* the land where he applies and practises all he has learned, and brings into action all the forces he has acquired."

The precise period of man's appearance on the earth is not known, as authors very variously interpret the Jewish and other chronologies. It is not improbable that the generally received opinion on the subject falls short of the truth, and that man has lived upon the earth for a longer period than 6000 years.

Since the above was written, there has been published a valuable work, by Mr. Schoolcraft,* from which we quote a few paragraphs.

The languages of the Indians "have been pronounced, on very slender materials, to contain high refinements in forms of expression; an opinion which there is reason to believe requires great modifications, however terse and beautiful the languages are in their power of combination. The aboriginal archæology has fallen under a somewhat similar spirit of misapprehension and predisposition to exaggeration. The antiquities of the United States are the antiquities of barbarism, and not of ancient civilization. Mere age they undoubtedly have; but when we look about our magnificent forests and fertile valleys for ancient relics of the traces of the plough, the compass, the pen, and the chisel, it must require a heated imagination to perceive much, if anything at all, beyond the hunter state of arts, as it existed at the respective eras of the Scandinavian and

* Historical and Statistical Information, respecting the History, Condition, and Prospects of the Indian Tribes of the United States. By Henry R. Schoolcraft, LL. D. Philadelphia: 1851.

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Columbian discoveries." He also says, that the antiquities of the Mississippi valley do not denote a high state of civilization in the aboriginal race, before the arrival of Europeans; the ruins of Palenque, Cuzco, Yucatan, and the Valley of Mexico, are, manifestly, monuments of intrusive nations.

The Scandinavians had visited the northern part of this continent, from Greenland, as early as the beginning of the tenth century; and even in the ninth we are told that Othere proceeded on a voyage to the North Pole.

The Indian race is of a very old stock, apparently more ancient than the cuneiform and Nilotic inscriptions, the oldest in the world. "Nothing that we have, in the shape of books, is ancient enough to recall the period of his origin but the sacred oracles. If we appeal to these, a probable prototype may be recognized in that branch of the race which may be called Almogic (from Almodad, the son of Joktan), a branch of the Eber-ites. * * * * Like them, they are depicted, at all periods of their history, as strongly self-willed, exclusive in their type of individuality, heedless, heady, impracticable, impatient of reproof or instruction, and strongly bent on the various forms of ancient idolatry. Such are, indeed, the traits of the American tribes." They believe in a spirit of good and a spirit of evil. This duality of gods is universal. They relate, generally, that there was an ancient deluge, which covered the earth, and destroyed mankind, except a limited number; they speak emphatically of a future state, and appear to have an idea of rewards and punishments hereafter.

The whole Indian population of the United States he estimates at 388,229, with, perhaps, 25 or 35,000 more in the unexplored territories.

Mr. Squier* remarks that the ancient population of the Mississippi valley was numerous and widely spread, as evinced by the number and magnitude of the ancient monuments, and the extensive range of their occurrence. "That it was essentially homogeneous, in customs, habits, religion, and government, seems very well sustained by the great uniformity which the ancient remains display, not only as regards position and form, but in respect, also, to those minor particulars, which, not less than more obvious and imposing features, assist us in arriving at correct conclusions." * * * * "The features common to all are elementary, and identify them as appertaining to a single grand system, owing its origin to a family

* Ancient Monuments of the Mississippi Valley. By E. G. Squier, A. M., and E. H. Davis, M. D. Washington: 1848.

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of men, moving in the same general direction, acting under common impulses, and influenced by similar causes.

He thinks the present condition of our knowledge on this subject indicates a connection between the builders of the mounds and the half-civilized nations of Mexico, Central America, and Peru, whose vast and imposing structures invest this part of the continent "with an interest not less absorbing than that which attaches to the valley of the Nile." The mound builders, like the last-mentioned nations, were, to a considerable extent, stationary and agricultural in their habits, — "conditions indispensable to large population, to fixedness of institutions, and to any considerable advance in the economical or ennobling arts."

While it is impossible to fix accurately the date of the ancient monuments, many facts enable us to judge approximately. None of these monuments occur upon the latest-formed terraces of the river valleys of Ohio. We are warranted in believing that these terraces mark the degrees of subsidence of the rivers, and one of the four which can now be traced must have been formed since these rivers have followed their present courses. "There is no good reason for supposing that the mound builders would have avoided building upon that terrace, while they erected their works promiscuously upon all the others." He adds, "The time since the streams have flowed in their present courses may be divided into four periods, of different lengths, of which the latest, supposed to have elapsed since the race of the mounds flourished, is much the longest."

The primitive forests which cover these mounds are in no way distinguishable from those which surround them. Some of the trees of these forests have a positive antiquity of 6 or 800 years. The process by which nature restores the forest to its original state, after being once cleared, is extremely slow. Without attempting to assign a definite period for such an assimilation, he says, "it must, unquestionably, however, be measured by centuries."

S. K.

Boston, 1851.

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NATURAL HISTORY

OF

THE HUMAN SPECIES.

To investigate the History of Man, upon zoological principles, and to apply them to the phases of his earliest available historical aspects, requires extensive researches, in a multitude of directions, — physiological, linguistic, religious, traditional, geographical, and migratorial, — for it is by their mutual comparison that light is thrown on many points, which, without these means, would remain entirely unknown. While the first takes cognizance of every question relating to man's organization, and the position he holds in the scale of being, according to the laws which should guide all systematic researches in animated nature, the second, being a faculty appertaining solely to mankind, inquires into the grammatical structure and the sounds of oral communication, and traces out the families of languages, by means of which the more remote origin, connection, and filiation of different tribes is made apparent; and it establishes, in proportion as the similarity of tongues or dialects is more complete, the degree of affinity they should bear, without entirely dismissing from the question the fact, that nations at times adopt a new language, to the total extinction of the tongue spoken by their ancestors. It is in cases of this kind that the records of national superstitions, legends, manners, and even proverbs, become, in their turn, elements of interest, to guide and correct the research. Finally, when to these are added the ancient migrations which

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the different families of man have passed through, under the various conditions imposed upon them by geographical necessities, conclusions, more or less satisfactory, may be drawn, even where, as yet, little or no positive historical information is available, to substantiate them by direct reference to written authority.

When, however, we endeavor to ascend up to the primeval period of man's creation, and the distribution of his species on the surface of the earth, the resources already pointed out will be found insufficient without the aid of geology, particularly when on the subject of the tertiary and alluvial strata, which contain organic remains of vertebrata; and, most of all, when these are found to be of mammalia, whose orders and genera, — nay, species, — are still existing in the same localities, or in a more remote climate; because it is in the same deposits of bones that the remains of man occur, though rarely; and their character and race is the subject of dispute.

From the point of view wherein we propose to examine the natural history of mankind, it will, perhaps, be found, like geology, not wholly free from arguments that, to some, may appear hazarded. In this class of researches, notwithstanding the positive nature of a multiplicity of facts before us, while we endeavor to abide by what we deem to be the truth, it is not intended to push the inferences further than hypothetical results, by means of which the phenomena of nature are best explained, and deserve to become facts in science so far only as they are warranted by the completeness of demonstration. But as many points of research are, in their nature, not within the reach of every test, much must remain partially speculative, or possessed of that sole degree of probability which a competent judge may be disposed to award, upon dispassionate reflection, and the existing state of our knowledge.

Man, being possessed of the highest privileges and endowments in the whole domain of zoology, becomes the ultimate standard of comparison to which all animated life is referred.

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His location in systematic arrangement, and the various conditions, physiological and historical, connected with the species, are, therefore, a subject of the highest interest. His primeval position, the region selected, where history and science can trace his first habitation and development, deserve an attention which it does not seem to have as yet obtained; for, by investigation in that quarter alone, a more correct estimate of the date of his era, anterior to the great superficial disturbances which have occurred on earth, can be arrived at. Hence is drawn the value of a clear view of the facts belonging to the cavern and loam deposits of organic remains, without, as well as with, human bones, and the so-called petrified skeletons of man which have been detected on various occasions. Hence, also, the interest attached to the changes which have occurred on the earth's surface, because they may have had a paramount influence on the primeval distribution of man, and constitute the only additional question which philosophical research can attach to the primordial history of the human species. At a later period, minor catastrophes, and the action of human passions, led to known migrations by sea, and to the progress of colonization by land. If the most remote were causes of the approximation of different species of man, or of the separation of the three great varieties of the human race, taken as a single species, the later were most certainly the source of the minor distinctions which do exist, both between nations of different types, and of the same original stem.

Although the question of the unity of species, — that is, whether mankind is to be regarded as a genus, constituted of three or more species, or as only one, composed of as many or of a greater number of varieties, subdivided into races, — may never be positively decided, it will not the less remain an inquiry of intense interest to trace the several conditions, which, in zoology, are assumed to have a preponderating influence. Therefore, researches directed to the questions whether the differences of conformation are sufficient in their anatomical

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and external characters, or the varying degrees of development of the intellectual faculties amount to a body of facts sufficient to come to a decision, are of the utmost importance. The laws prescribed, when similar questions are applied to the brute creation, we contend, should be equally imperative when relating to man in his zoological aspect; and if no better argument or more decisive fact can be adduced, than that axiom which declares that "fertile offspring constitutes the proof of identity of species," we may be permitted to reply, that as this maxim does not repose upon unexceptionable facts, it deserves to be held solely in the light of a criterion, more convenient in systematic classification than absolutely correct. So, again, in forming an estimate of the antiquity of organic remains, in juxtaposition with those of man, where the chemical and other conditions of the bones are the same as those of the mammalia they are found to accompany, they must be judged upon the same principles.

With the foregoing elements in view, we desire to enter upon the chain of our researches, reminding the young reader that no transient facts, solitary examples, or even allusions to names of tribes, legendary or religious, are disposed of, without entering into further details; but, from the necessity of remaining within the restrictions imposed upon us by the want of space, although many may be far from needing a known history, or they occur merely as fictions, taken from physical realities, such as the mythologist, versed in the philosophy of early history, will immediately recognize, notwithstanding that they come upon him under the combinations of a fresh aspect. But where traces occur of great nations, and especially of those that have had, or still continue to have, a marked influence on human destinies, a certain extent of detail, we trust, will be justifiable.

On questions of antiquity, involving periods of time, and on others which relate to the measurements of distance between geographical points, it may be well to bear in mind that the

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first, having no physical instrumentality, is liable to be contracted to within assumed chronological data, commencing at arbitrary epochs, not supported by researches in geology, and often appearing to be of insufficient duration; while the second, being based upon measures of length, either undefined, or varying in different places and times, are, from an innate propensity in the human mind to magnify the unknown, stated to be more than the reality. The purpose before us is, however, sufficiently attained, by taking given ages for the one, and approximation to true distances for the other. We can, by these means, notice a succession of epochs in the conditions of the earth's surface, each adapted to the existence of vertebrated animals, with, it appears, an atmospheric state, gradually more suited for mammalia, of certain orders and families, until it became fit for the reception of man, whose creation may have synchronized with the decay and subsequent disappearance of a great proportion of the most powerful and fierce species, organized to submit to some law of decreasing vitality, yet more than to a cataclystic destruction.

Here, then, we have the heads of those preliminary considerations, which demand some notice of the great disturbances that have affected the earth's surface, since the tertiary period came into operation, and our present zoology started into being. Next will be found requisite a few details on the bone deposits before mentioned, by whatever agency they may have been formed; for, as by the former, the primordial nations may have been forcibly scattered, so, by the latter, their actual existence in regions now separated by whole oceans, appear to be indicated.

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CHANGES ON THE EARTH'S SURFACE, SINCE THE COMMENCEMENT OF THE PRESENT ZOOLOGICAL SYSTEM.

THE present superficial character of the earth may be a result of the combined action of sudden violent disruptions, and long durations of gradual disintegrations, either operating as restorers of equipoises in the permanent laws of necessity, or as conductors of the slow process of accumulations, which again prepare a great convulsion. Taking the newer pliocene, or second tertiary age, to be coincident with the mighty changes of sea and shore, when volcanic disturbances were still in active operation, and that convulsive state, which subsequent catastrophes, and the succession of ages, have, as yet, only reduced in number, and moderated in force, when first a congenial atmosphere had begun to prevail, we have an epoch which would include the Mosaic deluge, and terminate with that greatest of all recorded destructions, — one, moreover, supported by innumerable historical confirmations, although some of these may be attributed to subsequent periods, and to distinct calamities, such as the bursting of the barriers of great mountain lakes, and irruptions of the sea; for these being confounded, in so many and remote quarters, with one great overwhelming event, it is natural that the reminiscence should be common to every region of the world. All these, whether sudden or slow disintegrations of portions of the earth, it cannot be doubted, must have had material influence on the distribution of races and human development. It is, indeed, chiefly by the agency of these changes, — by the insulation of parts of continents, resulting from submersions; and, again, by the expansion or rising of the submarine floor, whereon islands may have stood, till they united into continents, — that many of the phenomena of zoological distribution can be best

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explained; an.. if this observation is accepted with respect to brute mammalia, it surely implies that man, at least in some degree, may have had to encounter similar contingencies.

In order to appreciate the great changes proved, or asserted to have occurred, let us take a short review of those which are the most prominent in the physical history of the earth.

ASIA.

Asia, apparently the most ancient integral continent of the earth, it may be surmised, is held aloft by the agency of great subterrene volcanic trunks, whose direction is externally manifested by the huge mountain range, which, passing longitudinally from east to west, nearly beneath its centre, forms the general water shed to the south and to the north, and constitutes the hinge, the axis of nutation, to the whole of both its planes towards the two oceans. In the east, the chain forms two or more parallel ridges, widening until an elevated table-land, of prodigious extent, is included between them. This *plateau* forms, chiefly, the Gobi desert; its northern boundary consisting of the Altaic chain facing Siberia, and the southern, overlooking the great peninsula of India, contains, in the Himalaya system, the highest mountains of the world.* To the westward, it is continued by the Hindu Koh, which is the real Caucasus, and perhaps the Paropamissus of the ancients. Further on, the chain of Elburs overhangs the southern shore of the Caspian; then succeeds Western Caucasus, and the mountain groups of Asia Minor and the Crimea, anciently known by the names of Taurus and Tauris; this, crossing the Hellespont about Con-

* That this lofty chain was hove up at a much more remote period, is sufficiently proved by the presence of banks of oyster shells, discovered by Dr. Gerrard at 16,000 feet above the level of the sea; and in Thibet, shells fallen from cliffs, still higher, were taken up at the height of 17,000 feet. In Asia Minor, oyster beds are not more than 3000 feet above the sea.

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stantinople, joins the Balkan to the Illyrian range, and, with broken intervals, passes to the Carpathian and Alpine systems, terminating in the Pyrenees; and that, recommencing west of the Sea of Azoph, proceeds north to the Euxine, forming the Cymbric Chersonesus.

From the culminating points of this central region to the shores of every sea, we find traditions, historical records, and demonstrated facts, attesting changes of surface and of level truly appalling, — several of them having been converted, from physical realities, into mythological fictions. In the north, the Arctic shore has been for ages in a constant rising progress. Whole regions have been submerged on the south and east of Asia, particularly between the coasts of Malabar and Ceylon; and, again, vast provinces have disappeared in the Chinese and Japan Seas.

Already, in remote times, volcanic activity, manifested by upheaving of the earth, relieved the elevated valleys of their lakes, — such as those of Cashmeer and of Nepaul, — both events being recorded in the traditions of the people. That of the western Gobi escaped by the upper Irtish, and the lake of Balcach was, most likely, absorbed or percolated through the sand in the same direction. In the present era, percussions continue to be frequent in Affghanistan and Caubul, sometimes destroying houses and whole cities, with many human lives; and they are still more abundant and violent on the east side, where the mountains dip into the northern Pacific, to rise again and produce desolation in Japan.

A diluvian convulsion evidently occurred during the present zoology. It passed over Western Asia, from south to north, affecting the Arctic coast, and snapping a portion of the cardinating mountain ridge, it caused the surface of the earth to sink below the level of any known dry land, excepting the basin of the Dead Sea; thus the Caspian formed an abyss; the Aral lake, and, further west, perhaps the Euxine Sea shared the same convulsion; for all have the greatest depth of water on

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the south side, close upon the most elevated shores, where volcanic detonations are still constantly felt. Notwithstanding the quiescent state of the high sandy *plateau* of Persia, the frequency of naphtha springs, some boiling, others in actual flame, with constant smaller eruptions along the northern coast, and in other parts of the kingdom, attest the presence of numerous ramifications of active fires, once sufficiently powerful to form lofty mountain peaks, whose summits, such as Elburs and Demavend, show by their craters, now extinct or inactive, the vast extent and force of the disturbing agency, — perhaps still better exemplified in the high cones of Ararat, the loftiest of which recently fell in, and proved this mountain to be also of volcanic origin, crumbling in decay.

SOUTH OF ASIA.

Turning our attention to the south coast, at the Persian Gulf, we find the high rocks of Laristan and Mekran bordering on a deep-water sea, belted with narrow shores, — thus bearing tokens of subsidence; for though Reesheer, not an ancient place, was abandoned in the seventeenth century, on account of the encroachments of the water, Busheer, built in its stead, is already so low that, during certain winds, the whole town is surrounded by the flood.

THE INDUS.

Beyond Cape Monze (Ras Moaree), the terminal point of the Lukkee mountains, which form the western boundary of the Indus, we have the great delta of that mighty river. From the point where the stream escapes through the high lands, and now pursues a course almost due south, there are abundant tokens that originally it flowed nearly south-east, receiving the tributaries of the Punjaub, nearer their sources, and reaching the Indian Ocean as far eastward as the Rhunn and

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Gulf of Cutch, or even of Cambay. But, in a succession of ages, it has either filled a region of little depth; or, by a constant erosion of the western banks, from longitude 76, the bed of the river has worked westward to 67° 10′, over a space of nearly ten degrees. Perhaps allusion is made to the great changes in the direction of the waters of North-Western India, in the pretty mythological tale, anciently composed on the table land of Ommurkuntur; and relating the amours and jealous quarrel of the Nerbudda with the Burraet, whose sources are not far asunder; while the course of the first is westward, that of the latter turns east to join the Jumna.

In common with other great rivers of low latitudes, whose course, unconfined by rocky chains, is obliquely to or from the equator, the Indus obeys a law, probably in consequence of the earth's daily rotation, which impels the current of the stream constantly to abrade its western bank, and to forsake eastern channels; so also, in Arctic regions, it causes floating ice ever to drift westward, and to pack against all coasts facing the morning sun. The same results still occur; the current, now in contact with the Lukkee hills, finds them an ineffectual barrier; for, being gravelly, they are daily undermined, and, at Sehwun, the face of the rock is incessantly carried away. Even the road by which Lord Keene's army passed round its foot was so entirely swept away by the next following freshets, that, in a twelvemonth after, boats sailed in deep water over the very spot.

In the first ages of the present geological disposition of the earth's strata, the whole space below the Punjaub may be deemed to have been a shallow sea, which the enormous deposits of the river constantly tended to fill up, and the surf threw back in the form of sand and gravel, until the whole space was filled, down to the edge of deep water, where the currents generated by the monsoons first had power to act; then the present delta, which began higher up, was finally checked or reduced to very gradual additions. Nor is this

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supposition visionary. What the daily deposits can produce, in a course of ages, may be inferred from Dr. Lord's calculation; for he, assuming the discharge of the river to be three hundred cubic feet of mud per second, maintains it as equal to form, in seven months, an island forty-two miles in length by twenty-seven in breadth, and forty feet in depth; which, though the remaining five months may not continue an equal daily deposit brought down from high Asia, even with the allowance that a considerable exaggeration may exist in the estimated quantities, is, nevertheless, sufficient to have replenished a gulf of shoal water, of enormous extent, in a few centuries. Proportionably as the current shifted to the westward, the monsoon winds filled up the abandoned beds of the stream with drift sand, leaving only those of former affluents to continue their course, and the plain to become a desert of sand formed in ridges, sometimes of a considerable height; for the coasts of France, Holland, and of the Baltic near Dantzig, demonstrate that the surf and winds can elevate them to more than eighty feet, without a single ingredient in their mass to give them real stability. Such is the desert of the Indus from above the junction of the Sutlege (Hyphasis), the lowest of the Punjaub rivers, to the sea-shore of the delta, where Cutch, once a great island, is now a part of the continent. In this vicinity, so late as 1819, a vast surface of sand suddenly sunk down, upon which a stream of the Indus came towards Luckput by an ancient and forsaken channel from Hyderabad (Pattala?) to Bahmanabad, and filled the depressed soil in the form of a shallow lake, now called Ullahbund; and many smaller lagoons of similar origin, mere water deposits, are still dispersed on the plains eastward beyond Jeysulmair, to the Hoony river in Malwah.*

* By information very recently received, it appears that a second submersion, greater than the Ullahbund, has taken place during the present summer (1845), offering a further confirmation of the theory above advanced.

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Proceeding to the opposite coast of the Gulf of Cutch, we arrive at the island of Bate, or ancient Chunkodwar, renowned in the legends of India for the demon Haiagrieva concealing the Vedas in a conch shell; and then, on the furthest point of Gujrat, observe Cape Juggeth, at a distance appearing like a stranded ark, or wrecked ship. Here is a celebrated pagoda, connected with diluvian legends, for on this coast was Dwaraca, now represented by Mhadapore, "before the ocean broke in upon the land;" and it is still pretended that the annual mysterious bird makes its appearance, as it did in the time of Alexander. Inland the elevated Ghauts appear with but an insignificant breadth of plain at their base, continuing from Surat to Cape Comorin, in other respects destitute of indications of important changes; but when this most southern extremity of the peninsula is turned, the sea between the mainland and the island of Ceylon is found to be of inconsiderable depth, particularly in the Gulf of Manaar, abounding in the pearl oyster; and, from the long and narrow island of that name, on the Ceylon side, a shoal, impassable to ships of burthen, extends across the intervening space to Ramiseram, a similar low and lengthy island, which almost joins a point of land, projecting far out from the coast of the Carnatic. This shoal, based perhaps upon a natural dyke of rock, is the celebrated Adam's Bridge of geographers; and, at the time of the first European navigators, still retained several islands above water.* Both Manaar and Ramiseram are decorated with temples, and the whole region, on either side, is redolent of

* The channels have shoaled up to a little more than four feet of water, as we were informed by the late Major Rennell, who had surveyed the vicinity, since the French Admiral, Suffrein, about the years 1780–81, caused vessels to be sunk in them, from an apprehension that English forces might pass through these gaps, along the Indian shores, without his knowledge, and avoid going round the south side of Ceylon. Though at certain seasons there is a strong current in the channels, it is likely that the usual tides meet at the bridge, for the lagoons are everywhere filling up.

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mythological legends of the most remote antiquity. The sea, in particular that portion to the north and east of the bridge, denominated the Palk Strait, is the recorded space of a great diluvian submersion, leaving, on the Ceylon side, evidence of the fact, in the cluster of Jafnapatam islands, and innumerable lakes and ponds on the Carnatic side, which partly recovered from the inundation. The space of land submerged, extended from longitude 9° to 10° 20″ north, and from 79° to 80° 15″ east — above 3600 square miles, where mankind, as it appears, was both a witness and a sufferer. Whether this particular calamity was one of many postdiluvian events, resulting from a return to equipoises, after a great convulsion in nature, or whether it was in connection with the upheaving of Northern Asia, must be mere conjecture, though it is certain that the south coast for ages after, and even now, tends to continued depression.

CEYLON.

But Ceylon, the Lanka, Sinhala, Dwipa, Taprobana, and Salice, &c., of ancient classics, of the Hindoo and early Arabian writers, as well as in the traditions of Southern and Western Asia, and even in the opinion of a great modern geologist, was the primeval abode of man, whose first station on earth lay in the basin of Candy, girt round with high precipices, where the Mavela Gonga rises from beneath the summit of Mali or Hamateel, better known in Europe by the name of Adam's Peak. This cone, though not the most lofty in the island, rises to 7720 feet, and is seen, far out at sea, towering over the high-girt vale, which, flourishing in vegetation, may well have suggested an idea of Paradise. On the highest summit there is one of those manufactured impressions of human feet, which imposture represents to be of Adam or of Budha, and belongs to a very

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early period.* There can be no doubt of the remote civilization of Ceylon, and the ruins of enormous cities, such as Palæsimundus (Arrian), Amuragramma, Coodramalli on the pearl coast, and the innumerable artificial tanks, certainly prove an enormous and industrious population to have once flourished on the island.

Although Arabian legends of Ceylon have an air of the greatest antiquity, it is from Hindoo traditions, both in the island and on the main coast, that the mythological appropriations of the local submersion are confounded with the Mosaic or general deluge of history; nevertheless, a separate record of the scriptural event may be traced coming from a western source, first distinctly announced at the pagoda of Juggeth, before mentioned; and from thence passing onwards, more and more distorted, till every circumstance is obliterated, in fanciful tales, at the black pagoda of Juggernaut.*

On the coast of the Carnatic, eastward to the Bay of Bengal, where several considerable rivers incessantly pour down their tributes of earthy deposit, not only no perceptible extension of the low coast is discernible, but abrasion by surf, and occasional great sea waves, indicate progressive depression. All the streams are barred, and in deep water the currents are violent; thus, in 1793, the settlement of Coringa, near the mouth of the Cawvery, was overflowed by three successive seas, with most of the lives, houses, and property swept away. The ruins of Mahabalipuram, at no great distance from thence, better known as the seven pagodas, once a great and superb city, demonstrate the sinking soil, by several of the temples being either

* This was already an ancient practice in the age of Herodotus. Before his time there were some dedicated to Osiris, in Upper Egypt; one, ascribed to Hercules, was carved in rock, on the Danube; others are still found referred to Budha, in Japan and China. Paducas are common in India. There is one to Moses in Sinai, to the Saviour at Jerusalem, to Abraham in Arabia, to Mohammed at Mecca, and to a variety of sain in Italy, France, and even Wales.

† Consult Nearchus, Ptolemy, Kosmos, Knox, Upham, &c.

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entirely, or already partially, in conflict with the waves. Annually, immense expense is incurred to defend Madras from the menacing sea; and even the black pagoda, notorious for the inhuman religious practices in honor of Juggernaut, is threatened with a similar fate; and Hindoo legends tell of a primeval temple now beneath the sands.

THE GANGES.

In the Bay of Bengal, where the Ganges is reported to discharge, per day, solid matter equal in cubic bulk to the great pyramid of Egypt, and the Sunderbunds or Calingas form a delta of immense breadth, no further extension is observed seaward; but, according to Major Rennell, a vast surface of land, with the ancient city of Bengalla, once seated at the easternmost branch of the river, has been submerged in deep water.

Though the peninsula is perpetually disturbed by earthquakes, Allahabad offers one of the few indications of volcanic action, above the surface, by the thermal waters, observed in a deep cave, where "the tree of Adam continues to bud;" and beyond the Brahmaputra, a naphtha spring, in perpetual ignition, is held in veneration even in Thibet.

AUSTRALASIA.

On the east side of the Bay of Bengal, down to the extremity of further India, the shore, rich in alluvial deposits, brought down by the great rivers from Indo-China, repels the western monsoon, and maintains a powerful seaward vegetation; but where the Malay peninsula extends towards the great Australian islands, volcanic disturbances again become predominant, presenting, in their extent, above fifty craters in fearful activity. Disruption and submersion of what may have been a continent, a kind of counterpart to South America, may be surmised, by the shallowness of some parts of the sea, and the

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exceeding inequality of the submarine floor; the islands, great and small, appearing like the subsisting ruins of a once united region, which the straits of Malacca, Sunda, Bali, the Sea of Banda, &c., have separated, from the effect of immense percussions, originating at a great depth. No small confirmation to this supposition is drawn from the frequent identity of the mammalia observed on the islands and the neighboring continent; in several cases, the species cannot, with any probability, be supposed to have been transported from one to the other, by human intervention. Some of these are Pachyderms, common to both, and others of the same order, of different species; such as, 1st. Large ruminants: The Banting, *Bos leucoprymnus?* Rusa, or *Cervus equinus*, Elant of the Javanese Dutch. 2d. The Elephant? two or three species of Rhinoceros, a Tapir, and many more. In the distribution of zoological species, there is no other instance of great Pachyderms being confined to insulated locations, and none where the same species occur on two or more of them, and again on the mainland of the next continent. They offer, therefore, additional arguments in favor of the conclusion, that in the earlier period of the existing zoology, all these great islands formed part of the continent; and that in one anterior to it, the connection extended to Australia, since fossil remains of great Proboscideans (*Elephas angustidens?*) have already been discovered in that soil; notwithstanding that the present mammalia, perhaps with the only exceptions of the dog and rat, (both imported species,) are entirely implacental, with fewer congeners on the Asiatic than on the American side of the southern hemisphere. These exceptions in the former direction, are chiefly confined to those islands, great and small, clustered together on the north of the Australasian group, and with more questionable connection, extending by New Guinea to the south-east, including several Archipelagos and New Caledonia, all notoriously encumbered with coral reefs, ever the certain indications of comparatively shoal waters, and by Torres Straits passing to Australia

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proper; for the strait which severs it from New Guinea is almost fordable in many parts, the ship channels being narrow and dangerous passes. The whole of the islands in question, from New Guinea to beyond the Solomon's group, bear a still greater appearance of cataclysis, not by division so much as by submersion. Beside the singular zoology already noticed, the equatorial islands are the habitation of *Simiadæ*, such as the Gibbons, (*Hylobates*,) or long-armed apes, and of two or three species of *Pithecus*, or Orang Outan, in stature as large as men, and in strength superior to eight or more, — of all the brute creation the genus which structurally approximates most to man, who, to the eastward and in Australia, is himself represented by Papua tribes, cannibals so low in the scale of humanity, that, were it not for the admixture of other blood, hopes of ameliorating their condition would appear illusory. They might be considered to form the centre of that antique population which alone occupied the southern hemisphere, before the diffusion of the bearded or Caucasian man; a population primevally formed to breathe and multiply in the heated and moist atmosphere of tropical swamps and forests, at a period when the great Saurians and the now extinct Pachyderms existed; and that their native region, extending far eastward in the Pacific, had in great part subsided, leaving the islands and their organic creation, the evident wreck of a former system of existence.

EAST COAST OF ASIA.

It is off the east coast of this part of Asia that the main ramification of galleries passes from Japan to the north, as far as Kamtschatka, and to the south by several trunks, beneath the Bonin, Sulphur, Marian, and Ladrone groups; and again, by the Philippines, Banda, &c., become connected with the great equatorial centre of ignition in Java and the surrounding craters. Although Chinese history commences with their

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deified heroes, toiling to clear the upper provinces of lakes and marshes, the sea, particularly between the main coast and Formosa, by many geographical indications, supports the local tradition of submersions; such as Mauri Gasima, and other islands shown by the shoals, at the still remaining Piscadore and Bashee islets; and the tale, notwithstanding a due allowance for the expert impostorship of the natives, seems confirmed, by the fishermen's drag nets occasionally bringing to the surface a curiously colored porcelain, which the art, as now understood in the Celestial Empire, is unable to produce. The continent is separated from Formosa by a sea, we believe, always in soundings, the shores being bordered with a broad belt of sand, swamp, or sunken rock, generally indications of progressive denudations; and both coasts are not unfrequently visited by calamitous overflowings. Since these lines were first written, (1845), if the foreign news may be credited, an event of this kind has again taken place on the maritime provinces and the Yellow Sea, the waters rising in the Gulf of Pechelee, to the destruction of several hundred thousand human lives, innumerable cattle, the loss of all the houses and provisions, and the total ruin of above sixteen millions of the population, who were driven to seek shelter and food in the upland provinces. Even admitting probable exaggeration in the report, it is an event far surpassing the traditional deluges of Greece, or any other recorded in profane history. It is an occurrence that may boldly be claimed as a proof of continued depression of the southern and eastern shores of Asia, and the oscillations produced on the sea by submarine disturbance, which then, like a great tide wave, passes upon the land far above its usual limit.

In Japan, volcanic convulsions have been unremitting, from periods anterior to the most ancient records of the nation; for to them alone can be ascribed the repeated discoveries, at great depths, of jewels and manufactured objects, totally distinct from the present and noticed by all the native literati as more

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ancient than the existing creation. On the line of volcanic agitation, south of Japan, and near a crater in constant activity is the island of Assumcion, (or Ascension,) one of the Marian group (?) — now, like many others of this and neighboring clusters, low and small: — here there was lately discovered, by the officers of H. M. Sloop Raven, the ruins of a city, still, it seems, known by the name of Tamen. It stands so far in the wash of the waves that a boat is necessary to land at the buildings, which are composed of very large blocks of stone, some being twenty feet in length. Other reports were subsequently brought to Sydney, stating that one or two other cities of similar work, were extant on other islands, and equally submerged. One, indeed, seated on an island, named Pouznipète or Seniavane, is mentioned by Mr. C. Darwin, in his volume on the structure and distribution of coral reefs, but he supposes it to be the same as the first mentioned.* Tinian, however, is not far remote, and there, when Lord Anson landed, were found two parallel rows of squared upright stones, in the form of obelisks, each surmounted by a coping block, immediately recalling to mind the colossal pillar-idols of Easter Island, which are known to have been the work of a departed population, probably of the same race that once inhabited Pitcairn's, the late well-known retreat of the mutineers of the Bounty. These antique and now forsaken cities must have been constructed by a people totally distinct from the present inhabitants, and much more numerous than the existing locality could now supply with food. The group is entirely composed of volcanic cones, and of low coral reef islands; and we agree with Mr. Darwin in opinion, that they are the remains of land once much greater in extent, but sunken beneath the sea's level, by the effect of

* The most recent maps are unsatisfactory with reference to these islands; and, as both Mr. Darwin's account and our own were derived from the Sydney papers, it may be well to remain somewhat in doubt on the truth of the reports. We are obliged to that scientific observer for a note on this subject.

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the excavations of igneous exhaustion. The population was once unquestionably organized in a social state; it may have been a kind of Austral Pelasgian people, distinct from the present Jacalvas Biagoos, or Sea Gypsies, who always live on the water; but that one has wandered, as navigators and workers in stone, across the whole breadth of the South Seas, is proved by the monuments left on the islands above-mentioned, notwithstanding the great distance they are asunder; perhaps the builders of the great pyramids in some of the Australasian islands, — again repeated, under the name of Morais, in many of the South Sea groups, — the same who ultimately passed to the west coast of America, and introduced similar structures at Cholula and many other places; models upon which the indigenous civilization of the New World was based and progressing, notwithstanding the vicissitudes of international wars and conquests, until the arrival of the Spaniards laid the whole western fabric in the dust.*

ARCTIC ASIA.

Behring's Strait is generally of a trifling depth, scarcely forty miles wide, having several denudated and abraded islands intervening; and the coasts, in many parts, composed more of frozen earth than solid rock. As the water, with several shoals, is floored with fossil bones and shells, and there being no river of importance on either shore of the continents, or near, on the Arctic side, no great pressure can have come from the polar ocean; and, consequently, no great opening, if any, until the Arctic rising of Asia and Europe altered the relative conditions of the two seas. That once there was no current, may be inferred from the islands of New Siberia, and the vicinity being in part composed of ice, mixed with mammoth bones, tusks, and other organic remains; and the presence of

* See Addenda.

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several species of land mammals, common to both continents, attests a facility of passing from one to the other, and a passage to have been effected by several of them on the ice.

While the foregoing statements sufficiently demonstrate a continued declination of the south and east coasts of Asia, the case appears entirely reversed, from the lofty central mountain hinge northward to the shores facing the Arctic Sea. Chinese documents of remote antiquity report the land to have terminated at no great distance beyond the mountain chain of Northern Tahtary;* skeletons of whales having been found 800 miles inland, up the Lena.

The enormous loads of debris which some rivers, amongst the largest in the world, incessantly pour forth from the great central chains of Asia, convert them, during the melting of the snows, for a considerable period to the breadth of marine straits, and carry away hills, banks, and forests, in their course; and constantly shift the soil in such a manner, that, speaking of a more elevated basin, Cochrane remarks:— "It is but twenty years since the present centre of the river Selinga was the centre of the city Selenginsk." The Obi,

* According to the Chevalier Paravey, north-eastern Asia was still rising within the last two centuries. The shadow of a gnomon, set up in 1260, by order of Kobi-lay, emperor of China, proves that the northern coast then ranged between the 63d and 64th degrees of north latitude; whereas, now it is above 70 degrees. — Memoir read at the Geographical Society, 8th Feb., 1841; see Biblioth. Orientale d'Herbelot, t. iv., p. 171; Hedenstrœhm. —— M. Arago remarks that the ice has greatly accumulated in the Arctic seas within the latter centuries, and rendered navigation round the polar extremity of Nova Zembla totally impracticable, although the foregoing travellers maintain that the cold in eastern Siberia decreases sensibly; and this opinion is in perfect accordance with the gradual rising of the polar shore, for that must increase the power of the sun's rays very considerably, on the oblate spheroid surface of the Arctic Circle. Strahlenberg notices the entire hull of a keeled ship being found in the Barabinsk, between six and seven hundred miles from the sea. Wrangel observed drift-wooc above the highest sea level, upwards of 50 versts inland, and other phen mena of risings of the surface. See Reise.

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Jenissei, and Lena, all overflow to a vast extent, as was already remarked by Abulghazi; and no doubt the deposits of so many streams contribute largely to the extension of the shores in the Arctic Circle; but the increase thus obtained cannot be of sufficient extent to account for the rapid progress of the land, even where the depth is inconsiderable, and little current exists. It militates against the conclusions of the most scientific travellers who have visited the localities; among whom Strahlenberg, Pallas, and Humboldt stand conspicuous; and is an opinion, moreover, that every new research tends to strengthen, and one in unison with the belief of all the barbarous tribes that wander over those inhospitable regions.

CASPIAN BASIN, AN ASIATIC MEDITERRANEAN.

A GRADUAL upheaving of the Arctic shore, chiefly on the north-west of Tahtary, and also to the west of the Oural chain, can alone explain the general fact, which, in the north of Europe, is now fully established; and furnishes, also, the best argument to account for the loss of that great inland sea which once spread over the low bed where now the Obi and Irtish flow united, covering the whole lower Ichim and Tobol, the Barabintz, Lake Aksakal, and the innumerable pools, sea sands, incrustations, and efflorescences of salt, and recent shells. It reached by the Aral to the Caspian, was further connected with the Black or Euxine Sea, at that period inundating a considerable proportion of Southern Russia, and uniting with the Baltic, had again open communication with the White Sea and the Arctic Ocean, both by the Gulf of Bothnia and by that of Finland.*

The Caspian Sea, by accurate measurements taken in 1844, is eighty-three and a half feet below the Mediterranean, or about sixty-five feet lower than the Sea of Azoph; and Lake

* See Addenda.

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Aral, though higher, is still known to be below the level of the Euxine. Both are, with the exception of the Caucasian mountain system, and the Elburs chain, entirely surrounded by saline plains of hard clay, and low sandy steppes; on the west, extended to the Sea of Azoph and the Euxine, and between the Kama, Don, Wolga, Jaik, Lake Aksakal, the lower Ichim, and the Amoo, covering a space of 18,000 square leagues. In addition to the inland seas already mentioned, on the south-east is the desert of Karakoum, or of black sand, estimated. alone, at 150 miles in length, by 100 in breadth, forming a plain without a tree, — the floor of an evaporated and percolated sea.

With the exception of the Oulon-tag, the Ildiglis, and the low Monghogar hills, the surface extends north-eastward, with scarcely an undulation. It is studded, in all directions, with smaller lakes, sedgy pools, morasses, and temporary rivers, which now terminate in small water basins, or are lost in the sand; and the occasional more elevated spaces are always edged by water-worn indications. The vast lake, which formerly covered a great space on the south of Khiva, in long. 59°, lat. 41° 15″, has disappeared, all but a few pools, where the whole region is intersected with vestiges of ancient canals of irrigation, now dried up. These show a second stage, or era, when the sea had departed, and rivers still flowed onwards to the Caspian. So, also, the Kirguise steppe, forming the northern portion of the depressed region, is composed of a cold clay, which, notwithstanding, was anciently productive of a remunerating income to the cultivator; but husbandry continuing to be invaded by a black sea-sand, blown from the north, whole districts are now uninhabitable; and ruins of ancient farms, rendered desolate by a bed of this destroying substance, attest the progress and influence of the northern upheaving. The dust comes up from the Obi, and the results are comparatively recent, though their commencement must date back to a remote period. They were, no doubt, early, a

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cause of the destruction of the caravan trade, already on the decline during the Roman empire, and show that the efforts of Russia to revive it are unavailing, because, the course of the Oxus being changed, trade no longer reaches the Caspian by boats; and, moreover, water becoming annually more scarce, the nomad hordes of the desert, gradually deprived of cultivation by the inroads of the sea-sand, and driven eastward by the want of that necessary element, are necessitated to live by rapine where the earth grants no subsistence.*

Rivers like the Jaxartes, now denominated the Syrderiah, or Syhoun, and the Oxus, since called Jeyhoun and Amou, which, according to the ancients, originally flowed more directly westward to the Caspian, are now turned into the Aral, — a result which changes in the plane of declivity alone could produce, although the fact has been repeatedly ascribed to the labors of a poor, idle, and scanty population, destitute of mechanical skill, and almost of property in the soil. The Jaxartes now reaches Lake Aral through a sedgy bed, filling the north-eastern angle with clusters of islands, successively produced by the deposits bearing the same aquatic plants. The Tanghi-Deriah, said, anciently, to have constituted the Deltic branch of the Jaxartes, which discharged its waters into the Caspian, is reported to have been turned off by the Khokanians, who, dreading the Khiva robbers might plant colonies of their own people along the stream, raised a bank to cut off the current. Although great rivers are not to be thus turned from their natural course, the dry bed certainly exists. It is now overgrown with *Anabasis ammodendron*.†

* See Report to the Acad. des Sciences, Paris, by M. Hommaire Dehel, on the levels of the Caspian and Aral, and on the decrease of the Oxus and Volga. April, 1843.

† We doubt this being the same as the Janderiah, which forsook its bed so late as 1816. Report of a Memoir by M. A. De Kanikoff, to the Geographical Society of London, November, 1844. It is reported by Arab authors that both rivers remained dry for seven years, about 460, and the

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The Oxus was stated already, in antiquity, to have changed her course; probably because the bed of the stream shifted repeatedly; for undeniable vestiges of a broad river course, with upright water-worn banks, occur between Khiva and the Caspian, and notably near Old Ourgengj. Both streams now hasten the repletion of the Aral, already of small depth and full of islands; and these noble rivers, at some future period, may be lost in the sand, or take a course still further north, to Lake Aksakal, or ultimately reach the Tobol or the Ichim, and terminate in the Polar Sea.

Such are the abstracts of statements, and the inferences which establish the existence of an Asiatic Mediterranean, or, rather, a lagoon sea, in the earlier period of man's presence on the earth; for until ages after, though in a gradual progress of evanescence, desiccation was not effected till the bed and mouth of the Obi were elevated, when the mass of waters in the lagoons, no longer fed by external supplies, and being of themselves insufficient to maintain the equilibrium against percolation and the power of solar heat upon sand and hard clay, absorbed such an amount of moisture that the level of the dry plains is now far below the surface of the ocean. But so long as there was a sea, Northern Europe was insulated, inaccessible to migration, excepting on the winter's ice, and in the skin or birchen kayaks of polar nations. Geographically, our best course is now to continue the description of the progressive rising of the Arctic soil in Europe, and to return by the Mediterranean to Western Asia; because the chief phenomena affecting changes on the earth's surface are again common to both quarters of the world; in the north referring mainly to the same effects as already noticed in Asia, but with more undeniable proof; and, in the south-east of the Mediterranean,

statement is countenanced by the appearance above noticed, and perhaps still more by the prodigious number of Indo-German and Tahtar invaders, which broke in upon Europe about that period. They could not remain in a land without water.

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marked by volcanic perturbations, passing, from time to time, through Western Asia to Africa, and sometimes extending convulsively to Western Europe and even to the Azores.

EUROPE.

EUROPE, in many respects, is only the western prolongation of Asia, where features of the great central chain of mountains similarly break into ramified systems, turned to the Atlantic; while, on the east, they end or border the Pacific. On each coast there are mighty islands, containing the most energetic populations; and on each continent are the two forms or races of mankind, which alone have advanced in mental development, without any common point of departure hitherto philosophically substantiated. Both quarters have volcanic spiracula in the seas beyond them, and on the shores, though not in the same degrees of activity; for while the craters of many on the main land of Kamtschatka, in the Japanese islands, and on multiplied points in the Chinese and neighboring seas, are incessantly incandescent, those of Europe, with exception of the Italian, are dormant or extinct; and though the Azorean cluster turmoils on a smaller scale, Hecla, in the high north, alone has produced devastations, within the period of historical cognizance, sufficient to affect profoundly the permanent interests of a resident population. At the bifurcations of the European continuation of the great mountain chains of central Asia, are dislocations of great extent, among which that formed by the great basin of the Euxine, or antique Axenus, is the most remarkable. Its present outlet at the Bosphorus, dating, probably, not much anterior to the Greek heroic age, was clearly a consequence of increased pressure, produced by the waters of the inland seas, already noticed, increasing their weight towards the south, in proportion as the north was hove up; and both the Ouralian and Sarmatian arms were cut off from their communications with the ocean, but were not to be

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converted into marshes and deserts until drained off by a new outlet, and when the sun could act with power in the process of absorption. Then it was that the emphatical expressions of "the kings of the isles," and "isles of the west," which designate Europe in the oldest human records, were correct in the strictest sense; and, until the progressive results had been long in operation, man was not able to reach Europe in the strength of numbers, but only by families, or small clans of wanderers, in canoes or rafts, on the northern ice, or at the isthmus of Thrace, before it was rent asunder by a volcanic percussion, and the local deluges of Hellenic mythology took place.

Russia, west of the Oural chain, exhibits a counter direction of water-courses, which forms a kind of table land in the Vologda province, flowing towards the Caspian and the Euxine, and having only inferior rivers turned towards the pole. Hills, or small mountain clusters, commence already to rear their heads amid the marshes and lakes bordering on the Arctic shore, through the whole province of Archangel, becoming more elevated westward, after the interval occasioned by the White Sea, till they reach their utmost north and western limits in the Lapland system. Vologda, and the surrounding high lands of Russia, were then an insulated prolongation of the Oural range, full of forests and marshes, with the Euxine reaching to a great distance inland, and the Chersonesus (now Crimea) was a rocky island.* At present the southern steppes are still composed of sea-sands, and the vegetation consists almost wholly of saline plants, — *Artemisiæ*, *Salsolæ*, and *Salicorniæ*, — and lakes of salt water are frequent in the eastern parts; but the great affluents towards the south attest the desiccation of the soil by a progressive diminution of water. The fact applies equally to the Volga, Oural, and Don, as well as to the Borysthenes or Dnieper, and the Boug, the sacred

* Ai-petri, the culminating point of the Crimea, is estimated at 3500 feet above the sea.

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stream of antique Russia, the seat of Asa gods, when their Alan kindred still possessed the banks of the Don. At that period, Sacæ wandered over the newly recovered plains of western Siberia, and the great streams just mentioned had ceased to form Archipelagos of upland islands and peninsulas, between shallow creeks, marshy woods, and salt water pools, not even now obliterated.* Leaving, for the present, other considerations affecting the Euxine, till the volcanic system of eastern Europe is under review, we proceed with the Scandinavian peninsula.

ARCTIC EUROPE.

From Cape North, to the southward and east, as already observed, the Lapland high lands are a system spreading to the head of the Gulf of Bothnia, and, in connection with the high mountain chain of Scandinavia, once formed a great island, the Scansia of Jornandes. The gulf and White Sea being still connected, in 1450, by the Kitkacerva, and, probably, also, by the Ulea Lakes; and, more anciently, the Ladoga and Onega, communicating, by the Ozero Sig and Ozero Vigo, with the Arctic Sea. The greater part of Finland, thick set with pools, is in itself strong evidence of the fact. At the summit of the Gulf of Bothnia, it had long been observed that the sea was retiring by slow degrees, not so much from the effect of fresh water deposits, as, according to a common opinion, by a progressive rising of the submarine floor; for many outlying rocks, known from ancient times by distinct

* The Moscow uplands are given at 460 feet above the level of the sea; but the base of the hills, and water-courses, can scarcely amount to 100 feet, notwithstanding the continuous rising of the upper soil, by the deposits from above, washed down by rains and melting snows. In Poland, the canals between the two seas require only from ten to fifteen locks, although it does not appear that careful surveys had determined the lowest levels.

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names, and sung in Runic ballads, for being the basking beds of seals, where daring hunters acquired celebrity in their pursuit, had risen above water beyond the reach of their ancient amphibious visitors; parts of the gulf, which, half a century before, had been crossed in boats by the French academicians, were converted into permanent meadow land; and more minute research disclosed, at a distance inland, successive lines of beach, each provided with a bed of shells in a very recent state. From these the sea had evidently receded, according to the changes which an upheaving motion of the land, proceeding from the north, effected on the levels; and correspondingly raised beaches have since been observed by M. Bravais, on the opposite declivity of the Lapland system, near Hamerfest and Cape North, which show, by being at greater elevations, the acting forces to be most powerful on the Polar side. More than a century passed; with a view of settling the question by positive measurement, copper bolts were driven in several rocks at the mean sea level, and subsequent investigation substantiates that the rising progress is greatest in the north, being, at the summit of the Gulf of Bothnia, at the rate of 4½ feet in a century, decreasing to one foot at Stockholm; and on the southern or German shore of the Baltic, at 0, or, as we think, declining.* This supposition is countenanced by several submersions in the southern Baltic, already observed, from the year 830, such as those resulting from the great storm, when the island of Rugen was separated from the German shore, and the successive marine depressions of the commercial republics of Winetha, Arkona, and Jomsberg, near Wollin; some enduring to the twelfth century, when their ruin, effected by the

* These researches date from the year 1700, when, to mark the true level, copper bolts were driven in, and deep grooves were cut in the rocks. They terminated in 1827, the observations being made by Davis, Hellant, Cydenius, Klingius, Rudman, &c. Several French philosophers have made later researches, and confirmed the progress. See Elie. de Beaumont, Mem. Acad. des Sciences de Paris.

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hand of man, was followed by submersion beneath the waves. Continuous denudations of the sea-shore, or erosions of rivers, furnished the amber of the Baltic from very early ages; and the check of that trade is now only as it respects discovery of it at sea, but not inland. A prolonged depression on this coast alone accounts for the absence of deltas at the mouths of the Vistula and the Oder, and may be in combination with the changes of surface, which, while the real plane of declivity of the two last mentioned rivers became greater towards the north, did not affect their watershed, and aided in throwing the masses of the Lagoon Sea down the western Russian rivers into the Euxine.

WESTERN EUROPE.

The whole of Northern and Western Germany is low and of a sandy alluvial soil, which, without the aid of cultivation and human care, might still be threatened with marine invasion; and Denmark, in its oldest poetical aspect, was apparently less intersected by creeks and water channels than at present. High sand hills are easily formed by the surf and the wind; they are no proof of antiquity, still less of durability, from the fact of the sand bank, eighty feet in height, near Dantzig, being broke through in 1843, and forming a new mouth for the river, during an unusually high flood of the inland waters.

Some part of the east and south of England was certainly connected with the opposite coast, at a period preceding the change of direction which the Rhine received, when, turning from its ancient bed through the Cevennes, a channel was formed to the north, and the waters first reached the sea by the volcanic basin of Neuwied. Western Germany seems then to have been indented with deep bays, estuaries, and islands, the salt water reaching above Wezel, on the Rhine, where the heaths still abound in sea-shells, in a perfect

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state.* No extensive deposits, brought by lengthened water-courses, had as yet formed deltas; for, while the great volcanic craters from the Vogesian chain to Kloster Laach, in the basin of Neuwied; of the Pulvermar, near Gillenfeld, in the Eifel, &c., were in activity, the Rhine had not broken through in a northern direction; and the event may be regarded as a consequence of the igneous exhaustion of that region producing a considerable change in the levels. The same law which altered successively the courses of the Oxus and the Jaxartes towards the north, may have operated in a similar manner on the Rhine, Meuse, and Scheldt. But these important alterations in Western Germany and Gaul were effected, and their consequences were no doubt considerably advanced, before man was present in Europe; yet comparatively recent the period may be deemed, since at Arend See, in Brandenburgh, a lake of about sixteen square miles' surface, apparently produced by subterraneous percolation, which causes the earth to sink vertically, in stages each of about forty feet perpendicular, offered a further instance of this phenomenon so late as 1660. It is one of the same class as that subsidence of the earth, which occurred in 1806, near the delta of the Indus.

With the prolongation and change of direction in the course of the rivers in Western Germany, the weight of waters, or a contemporaneous percussion, may have shaken the chalky and alluvial shores, converting Britain from a peninsula into an island, and forming the Channel and Dover straits. Waters which, until that period, covered the drainage of the Elbe, the Weser, and the Ems, &c., more anciently communicating, but imperfectly, with the Gallic Sea, (perhaps at high water only, through the Belgian low lands, behind the chalk cliffs of the coast to the Liane, south of Boulogne,) suddenly forming a

* We have picked up on the German side of the Rhine, near Wezel, several univalves, and a pinna, with the hinge ending in a very acute point. These were found on the line of the new chaussée.

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vast current by means of the new efflux of the Rhine, would give such force to the ebb tide, (now first beginning to meet the flowing wave in the channel,) that a new aspect would be given to all the shores, even far up the east coast of Britain. Heligoland, a friable conglomerate, became an island at no very remote period. So late as the ninth century of our era, it was still forty times the present area; in 1300, twelve times the surface; but woods, rivulets, pagan temples, monasteries, parishes, and castles, have been swallowed up, and the portion still above water gradually crumbles away. When the Cymbers penetrated into Italy, they had recently been dislodged by great encroachments of the sea on their native shores, which were in the low lands of the above-named rivers, on the north of the kindred tribes of Friesland, who were repeatedly sufferers from the same cause, down to recent times. Thus, on the river Unsing, which, in the Roman era, reached the sea by a direct course, and later by the Ems, there is noticed the Portus Manarmanis; and higher up the bank, a place named Siatulanda, both localities being now lost in the waters of the Dollaert.*

THE RHINE.

The whole delta of the Rhine, by the many changes that have occurred in its several arms within the historical period, through West Friesland, Holland, and Zealand, proves the unconsolidated condition of the deposits; and the depth of alluvial was shown at Amsterdam, in 1604, when a well was sunk, in an abortive attempt to obtain pure fresh water, the

* If the convulsion, which certainly took place, belonged to so remote a period as a former order of creation, the final effect would have terminated long before our historical era. It is more likely to synchronize with the changes in the Polish and Russian inland seas, when a very considerable alteration must have resulted in the currents and tides on the west coasts of Europe.

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workmen finding sea-shells and animal hair to the depth of 132 feet.* The lake Flevo, known to the Romans, was evidently not then ancient, since a great portion of West Friesland, on its banks, sunk down and formed the present Zuyder Zee, leaving of the coast only a chain of islands. The canal of Drusus, now denominated the Yssel, is a further instance of the tendency of rivers to flow northwards; for this additional outlet of the Rhine was a proximate cause in the formation of the Zuyder Zee, by breaking through the coast more to the north than the ancient channel, which was a river then known by the name of Flevus, whose waters were discharged close to the present Flie island. Another great submersion in the south-east of Holland, was felt at the Biesbosch, near Gertruydenberg, in 1421, when the waters of the Meuse and Waal, suddenly overwhelming seventy-two villages, 100,000 human beings were lost; but the subsoil must have sunk at the same time, since the whole region has remained beneath the surface, and is now overgrown with huge reeds.

The principal mouth of the Rhine, during the Roman sway, is all but obliterated, excepting in name, and the whole coast of Holland has much receded from its earlier tide-mark; for, at the spot where the Rhine mouth entered the sea, there stood a fortress, by some ascribed to Drusus, by others to Claudius, intended to guard the entrance. The whole plan of this structure, with walls of hewn stone, still three feet high when it was last seen, is now buried under the waves, and more than a mile from the present shore.† Coins of Postumus, Victorinus, and Tetricus, with others, resembling early Anglo-Saxon

* See Des Roche's Hist. des Pays Bas., vol. i. A learned and exceedingly curious work, which the untimely death of the author has left unfinished. The Ganges offers a similar result, for, on sinking an Artesian well at Fort William, Calcutta, bones of canidæ were brought up from the depth of 150 feet.

† This place is known by the name of Huis-ten Britten. Here several alto-relievo figures of the goddess Nehalennia, and many coins, have been

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Skeatta, indicate that the fortress was garrisoned, and, therefore, that the river was still navigable after the Roman departure from Britain. Further west is the Roompot estuary, where another Roman fastness is supposed to have existed on the sand bank facing Ter Veer, in the East Scheldt; and Romerswal, another fortress of the same people, was also a small town on a bank in the West Scheldt, opposite Bergen-op-Zoom, where we have seen remains of brick walls, covered with sea-weed and muscles. So late as 1606, the Hock of Holland, Goeree, and other parts of the coast, were invaded and swept away; and, at this day, West Capelle, in Walcheren, after similar devastations, is defended by rows of piles, which occur again at Blankenberg, and even at Ostend.

It was here, amidst the multitude of low woody islands formed by the confluence of the Scheldt, Dender, Lys, Nethe, and Meuse, called the Paludes Morinorum, that places of safety existed, whither the inhabitants retreated out of the reach of Cæsar's legions. In the middle ages, all this region was still encumbered with swamps and water channels, which extended up to St. Omers or Sethon,* communicated with the sea at Calais and Dunkirk, until the emperor Otho, about the year 980, caused a canal to be dug from the Scheldt to the Hondt, which gradually drained the upland, and now constitutes the Western Scheldt. Persevering cultivation, sustained by manufacturing riches, alone succeeded to rescue the drowned soil, and make it one of the most fertile portions of Europe. The old mouth, now the Swyn, between Sluys and Cadsandria, passed through a vast pool, where the largest ships and fleets could assemble; and the Swyn mouth was

found during very low tides. The ruins have not been seen above water during the last hundred years.

* Sethon, Portus St. Aumeri, now St. Omers, was still a seaport; that is, had a channel opening to the sea, in 1156, as appears by a charter of Louis VII. Compare Cæsar de B. G., lib. iv., with St. Paulin Epist. ad Victru, who wrote in the fourth century.

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still so broad in latter ages that both the fleets of King John and of Edward III. succeeded in attacking and destroying their enemies within the port; but in time that harbor became marshy, and then meadow land. On the side of the Western Scheldt, however, the land diminished, and between 1377 and 1477, upwards of forty villages were submerged, chiefly about Biervliet. On the coast, the village of Scharphout was swept away, in 1334, to the sands where now Blankenberg is built; and Terstreep, near Ostend, shared the same fate. In no part of this vast space of alluvial deposit have fossil remains of Pachyderms been observed. In the Rhine alone and about the shores of that river, bones of two species of *Bos* and of *Cervus giganteus*, or Irish Elk, were noticed, and one or two *Saurians*, referred to Crocodile, have been detected in Upper Flanders.

GREAT BRITAIN.

If we now turn to the British Islands, we find the whole east coast of England marked by devastation and marine encroachment. From Cromer, where the village of Shipden was lost in the reign of King Henry IV., though it is said the ruins are still discernible at very low tides, about half a mile distant from the shore, and thence by Yarmouth and Harwich to Reculver in the estuary of the Thames, the work of erosion is everywhere conspicuous, and still proceeding. The soil is evidently older than the alluvial of the German rivers, for debris of Proboscidians, of Saurians, and Tortoises, are not unfrequently found imbedded in it. At Dagenham, in Essex, as mentioned in the Phil. Transactions, the Thames bank wall having given way, the soil washed down, in some places, to twenty feet in depth, when "many large trees became exposed to sight, oaks, alders, and hornbeams, one of which bore '*marks of the axe, and the head was lopped off.*'" There is no reason for rejecting the tradition concerning the Goodwin

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Sands; and the disappearance of the island was a natural consequence of the tides acting upon its low shores, from the time the Straits of Dover were opened, and the calamity an immediate result of neglecting to defend the banks by artificial means. The same force which swept away the town of Winchelsea, in the reign of Edward I., had long before destroyed the Portus Iccius on the opposite coast, and commenced the gradual denudation of the rocky basis of the Channel Islands, where a tax is still levied and applied to arrest the further encroachments of the sea.

If tradition could be trusted, the present channel within the Isle of Wight, was, in earlier ages, sufficiently shallow to be forded at very low tides, where now line of battle ships pass in safety; but this result is applicable to the whole British Channel, while Poole harbor is filled up by the deposits of slack water. There is a marked character in the long succession of landslips and "founders" in the vicinity of Lyme Regis and Axminster, resulting indeed from percolation to certain underlying strata, but, most assuredly, in connection with a progressive erosion of the floor of the channel.* On the coasts of Devon and Cornwall, numerous marks of ancient sea beaches, hove up far beyond the present levels, indicate similar pressures and slidings of superincumbent strata, forcing the beach to rise up in the same manner as occurred near Axminster. St. Michael's Mount, however, is now almost severed from Cornwall; and the invasion of the sea is still attested by the remains of forest trees, sunk beneath the waters.

Beyond the Land's End, the Scilly Islands, now forming a cluster of rocks, were almost wholly united when first they became historically known, under the name of Cassiterides. In the Irish Channel, submersions, perhaps even greater than

*If similar events in other countries were carefully recorded, they would be found surprisingly numerous. Balbi, and Mr. G. Roberts, in his account of the Dowland and Bindon landslip of 1839, enumerate a great variety of them.

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in any other part of England, appear to have occurred, and phenomena on shore are equally surprising. A part of the bed of the Severn is stated to have risen, in 1773, to the height of thirty feet, the back water immediately forming a lake, which was drained by cutting a new channel. According to Camden, and Bishop Hakewell's Apology, at the time of the Norman Conquest, part of Pembroke formed a promontory, extending towards Ireland; but the space was already sunken beneath deep sands, in the time of Henry II., when a violent storm so far uncovered the original surface, that many stumps of trees appeared fixed in the earth, "and the strokes of the axe upon them quite fresh."

In the Welsh Triads, Orkney, the Isle of Man, and the Isle of Wight, are styled the three adjacent islands of Britain; and they proceed to mention the subsequent separation of Anglesea from the main land. Nennius similarly alludes to the three adjacent islands; yet, since that period, Orkney became divided into several parts; and it is evident that other portions of Wales and Western Scotland likewise became insulated. So many important changes, particularly in the British Channel, imply the agency of forces which were not in activity at very remote periods; for, had they been of primeval date, their operation would have effected the whole of the changes they necessitated long before the dates here mentioned.

SOUTHERN EUROPE.

Returning to the west coast of France, we find the important invasion of the sea, which in the eighth century destroyed a great space of poor and forest land, separating Mont St. Michael from the main shore;* and in the Bay of Biscay,

*There is an earlier great event of this kind recorded in history, in the reign of Gallienus, when one or two Romano-Celtic cities, in Armorica or Bretagne, were destroyed. That in the reign of Charlemagne was equally destructive on the coasts of France and in the Baltic.

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the currents and winds continuing the encroachment on the coast, they have in some places advanced two miles within a century.

But the Spanish peninsula, forming a plateau the most elevated of Europe, more than 2000 feet above the ocean, without an existing volcanic crater on its surface, is nevertheless subject to violent earthquakes, particularly on the side of the Atlantic. Geologically, as regards ossiferous breccias, the south point of the peninsula reproduces, at Gibraltar, a stratification which occurs about Genoa, and is repeated in the islands on the coast of Dalmatia. They have all compressed, between beds of limestone, innumerable remains of mammals, held in a matrix much harder than the bones themselves. In zoological affinity, Spain and a considerable portion of the greater Mediterranean islands bear an African rather than an European aspect; and the similarity was much more evident in early times. Spain, having no deltas, with only a few shoals formed by the Tagus, Ebro, and Llobrega, is surrounded on three sides by very deep seas, close up to the shore.

Further eastward, within the Mediterranean, the coast of France presents a totally different aspect; for the whole extent of the shores, with little exception, is low, belted on the seaside by a shingly beach, some hundred yards in breadth, and having behind it salt water lagoons a mile or more in diameter, but only a few feet deep. This breakwater of shingle extends to near Aigues Mortes, and the delta of the Rhone; for that river has evidently supplied the materials for it. At some distance, facing the Mediterranean, a chain of lofty hills contains lavas and extinct craters, particularly about Nismes and Montpellier, and again in the department of the Aude, where fossiliferous caverns exist, which will be noticed in the sequel. The hills trend on one side towards the eastern Pyrenees, and on the other, ascending the river course of the Rhone, become connected with the Alps; and, assuming the name of Vogesians, display basaltic formations and craters, that connect them with

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the basin of Neuwied. The delta of the last-named river is of considerable size, with a gradual but slow progress in the sea; it having been demonstrated, by measuring the distance between the fossa Mariana and the sea, that from the time of Marius to the present, a period of nearly 2000 years, only about 1000 yards have been added to the shore.

ITALY.

Passing, for the present, the Alpine system without notice,* we arrive at the Italian peninsula, reposing, in its whole extent, upon an ignited gallery, in perpetual activity, and producing a sea more fathomable than the abysses of the Gulf of Lyons and the Genoese offing. On the Tyrhenian coast, the changes most readily ascertained occur at the port and city of Pisa, which were originally situated at the mouth of the Arno, whereas they are now above four miles inland; and the Ansar streamlet, which, according to Strabo, fell into the river close to the town, now terminates ten miles distant. The volcanic soil, alike fertile and deleterious in the maremmas, is in some places unstable, so that, even since the fall of the Roman empire, certain spots about Baiæ have been sunk below the level of the sea, and again raised up above it, without entirely overturning columns, such as those of the temple of Serapis, all of which, at a certain elevation above their base, have been subjected to the boring of Lithodomi, while other parts of the ancient city, and a paved road, are seen beneath the waters. The whole length of Italy exhibits craters, lakes simmering,

* Remarkable, however, for land slips, anciently more numerous and extensive than at present. In the Alps, fragments of Roman roads, with arched gateways, occur among elevated precipices. Hannibal encountered a subsidence of the road on his passage. Those of Mont Grenier, Diablerets, Mont Chede, and particularly of the Rossberg, in 1806, are well known; and that of Cernans, between Dijon and Pontarlier, in the Jura, where the high road sank 300 feet, in 1839, is the last of importance.

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volcanic pits, crevices emitting sulphurous vapors, till we reach the kingdom and sea of the two Sicilies, where a vast concentration of volcanic fire permanently discharges from below smoke, gaseous vapors, flames, and lavas, by the craters of Ætna, Vesuvius, and Stromboli. Thucydides, Seneca, Strabo, Pausanias, Pliny, and others, mention numerous earthquakes in Italy, where mountains were split, cities were overturned, and volcanic islands rose and again subsided. Since the Vesuvian eruption, recorded by Pliny the Younger, no calamity more appalling appears on record than that which took place in 1538, when, in a few hours, Monte Nuovo, a flaming mountain of four miles in circumference, rose out of the earth, destroying the village of Tripergola, obliterating the Lucrine Lake, and caused the ruin of the country to six miles around it; unless one greater still occurred, when Messina in Sicily, and many towns of Calabria, were destroyed in 1786.

No author states at what period, and to what extent, volcanic convulsion changed the surface of Eastern Italy, and separated Calabria from Sicily, by a disrupture now denominated the Straits of Messina. The event can only be surmised by approximation; for, although the catastrophe confessedly took place before written historical record, it was not so remote as to have obliterated the terror impressed upon the memories of subsequent generations living in the vicinity, or to have worn away the dangerous impediments of Scylla and Charybdis, which intervened at the most adjacent point for crossing from one coast to the other, and probably not long before the foundations of Zancle (now Messina) were laid. The event may synchronize with the close of that transition era of convulsive phenomena which includes the bursting of the Thracian Bosphorus at the volcanic Cyanean islands; the Greek deluges; the separation of Eubœa from Attica; and the passage of a large diluvian wave across the isthmus of Corinth, which has left indelible marks on all the coasts in the vicinity,

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and was particularly recorded at Dodona.* They were the necessary precursors of the first swarming of the tribes that came down the Hellespont, and commenced the heroic age of Greece and Italy.

In the Adriatic, at the summit of the gulf, we find Adria, or Hadria, said to have been built on the sea-shore, by Tarchon, leader of the antique Etruscan people, about the time of the Trojan war. The present town, standing upon the rubbish of two others, is now fifteen and a half miles distant from the nearest mouth of the river Tartarus, which is still six miles within the farthest point of land projecting in the sea.† It is only of late years that, in making excavations at the depth of several feet below the present surface of the town, a former level was found, with numerous fragments of Etruscan and Roman pottery; and, at a still greater depth, a second floor, where all the earthen-ware fragments proved to be Etruscan alone, and there were vestiges of a theatre! In these facts, both the raising of the soil and progress of alluvial deposits are demonstrated in waters but little disturbed by marine currents, and during a space of 3000 years.

THE EGEAN.

In the Egean, volcanic disturbances have been and still are exceedingly numerous and destructive. From the remotest periods recorded, islands have risen up from the sea; such as volcanic Delos, overhung with vapors to the present time; or torn from the continent of Asia, like Samos, with its ancient organic remains of Neiades, and craters, one of which commenced latterly to furnish a rivulet running to the sea; and

* Scholiast upon the 16th Iliad, v. 233, quoting Thrasybulus, an ancient author, and other comments.

† Now Po di Levante, and most likely the oldest bed of the Padus or Po? The lowest stratum of ruins was at the depth of more than twenty feet.

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other islands, within these few years, have been visited by earthquakes of the most calamitous violence. Through the Cyclades there came, in remote antiquity, a sea wave, raised up by some volcanic convulsion, which desolated Greece, and is recorded as one of the deluges; while other percussions opened the passage already mentioned, for lowering the surface of the Euxine into the Propontis, and thence to the Egean; an event commemorated in Samothrace, when that island most likely was separated from the main coast.* It was then the Cimmerian Chersonesus, from a rocky island, became a great peninsula, and Phanagoria of the Mœotis began to exhibit the cones of deposit from which mud is ejected to the present time. The Euxine, Caspian, and Mediterranean, have shoal water and islands almost exclusively on the north, and the deepest sea on the south; but the Euxine alone witnesses percussions, which still continue to elevate the highlands of the Crimea. From the year of the death of Mithridates to the present period, many severe earthquakes have shaken the promontories of the coast, and caused destructive avalanches. At Sevastopol, the ancient Sinus Portuosus of Mela, iron rings, originally fixed in the rocks, probably by the Genoese, to secure vessels, in natural docks, close to the shore, are now risen so high above ground as to be no longer available for that purpose; and, in the autumn of 1844, a sudden heaving of a volcanic disturbance caused the sea to recede from the whole line of the northern coast, leaving all the vessels then close in shore stranded.

In the Caspian, Baku, like Derbent, had its walls partly thrown down by the sea, in 1784; yet now it stands a quarter

* The effects of this sea wave are clearly marked on the east coast of Attica and Peloponnesus. It broke across the isthmus, and left marks of its violence in the Saronic and Corinthian gulfs. Traditional recollections of these enormous catastrophes are depicted in the language of St. John — "And every island fled away, and the mountains were not found." Rev. xvi. 20. Patmos was in the direct line of this convulsion.

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of a mile from the water's edge. The level varies occasionally six or seven feet; and small volcanic cones still break forth on its shores. In the lake, or rather bay of Ensili, three new islands have appeared since 1811, already showing several willows upon them; and the back water of the Gemishawas is become fordable, though, until recently, it was not to be traversed, the river waters having sensibly diminished. The Caspian is the Deryah Kolsum of the Arabs, because it is covered with a mist ever hanging on the water.

ASIA MINOR.

Asia Minor appears subjected to the action of at least two subterranean volcanic galleries, which, in connection with the Italian system of ignitions, passing beneath the Egean, are the agents of convulsion in that sea; and in Greece and Thessaly, produce those mephitic localities, inflammable rivers, and gaseous exhalations, which were used in mythological doctrines and in the prophetic impositions of the Delphic oracle.

Others, of at least equal antiquity, existed on the Asiatic side; and although no conspicuous volcanic crater is pointed out in the peninsula, excepting at the present Dopos Kalesi, and at Koolah in Catacecaumene, where the lava district reveals volcanic agency, apparently not long dormant. There is, also, at the extremity of the Bosphorus, where the Cyanean craters are submerged, a recent lava formation, particularly conspicuous on the Asiatic shore.

No region has been more constantly disturbed by earthquakes than this high peninsula, from the earliest period to the present; but perhaps most so during the Roman sway, when, in the reign of Tiberius, fourteen, and in that of Julian not less than one hundred and fifty cities were destroyed in one convulsion.

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BASIN OF THE DEAD SEA.

These convulsions of the surface are external signs of the gallery that passes westward; but there is a second, which turns from beneath Taurus, south of Syria and Palestine, producing, in the valley of Jordan, the celebrated Dead Sea, or Asphaltic Lake, regarded as the deepest basin, beneath the level of the sea, in the known world, the surface of the water being far below that of the Caspian. No exact measurement of this depression of the soil is, as yet, rigidly determined, because the instruments employed for the purpose, — the mercury rising to the summit of the tube, — have always failed, by the excess of their indications, to offer a trustworthy basis for calculation. Russeger, the last scientific traveller, being similarly disappointed, gives, from other calculations, the surface of the lake, at the mouth of the Jordan, as 1319 French feet below the Mediterranean; Jerusalem, by measurement, as 2479 feet above it; and yet no traveller remarks, that if these statements be nearly correct, the ridge behind, or west of Jerusalem, being in sight from the lake, would be more that 4000 English feet higher and loftier than any mountain in Great Britain;* nor is there any notice taken of the levels of the lake, as compared with the Gulf of Akkaba, — which is nearly on the same level as the Mediterranean, — and the elevation of the ridge which parts the Dead Sea from Wady Moosa. Already, before the era of Abraham, it is evident, by the notice of slime pits (naphtha) in the plain of Gomorrah, that volcanic action was kindled; and when the surface subsided into the Asphal-

* According to measurements of British naval officers, taken after the capture of Acre, in 1839, it appears — by lines of altitude, carried from the Mediterranean to the Dead Sea, &c. — that the Lake of Tiberias was 84 English feet below the Mediterranean; the Arabah al Kadesh 91 feet; the Dead Sea, 1337; whence it is plain no region of equal extent, on the earth, presents phenomena of such great difference; for the culminating point of Libanus rises, at Mount Hermon, to 10,000 feet.

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tic Basin, the ridge in Wady Moosa was elevated, and the Jordan, already insufficient to compensate for the evaporation, could no longer flow to the Red Sea. There is, at least, a certain affinity with Africa, in this region, supported by a proportion of the local botany, and by the fish of the Lake of Tiberias. The volcanic flues, branching off, pass through Arabia, to Aden, and beneath the Red Sea; and another, more due west, communicates with Northern Africa, beyond the Egyptian boundary, far into the interior.

From Palestine and Syria, eastward, to the Indus, there are only three rivers of importance that reach the sea. They al unite into one channel, and although they drain an immense surface, generally arid and sandy, and the Tigris, in particular is swift, they have no period of inundation like the Nile, but simply freshes in the spring; and albeit they terminate at the head of an enclosed gulf, they have not formed an extensive delta. The high table land of Persia is estimated at little less than 4000 feet above the sea, a most arid desert, but with rivers from the north-eastward forming the fertile valley of the Helmund, and terminating in Lake Aria or Zurra, anciently much more extensive than the present, having ruins of vast cities in the vicinity, unknown in history, and of the remotest period; the cradle where Iranian power was nursed. From the social systems first evolved on the Oxus and the Helmund, and thence carried to the Tigris, Euphrates, and Choaspes, when combined with those of Egypt and Palestine, the present religious, moral, and scientific state of the world is almost entirely drawn. The fundamental principles relating to the highest good, and the maxims of the greatest evil, emanated from Western Asia, wherein the ancients used to comprehend the Nile, as far up the course of the river as the Nubian frontier.

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CURRENTS OF THE MEDITERRANEAN.

But the isthmus, connecting Egypt with Asia, did not exist at the commencement of the present geological arrangement. The Arabian prolongation of volcanic galleries may, indeed, have dug the channel of the Red Sea, since, on the Abyssinian sides, mephitic lakes and a sulphurous soil reach from the coast to the mountains, and chains of dormant craters pass behind the coast, in a south-east direction, even beyond the equator. So, likewise, on the west of the Nile, extensive tracts, bordering on the desert, manifest igneous activity, not far below the surface, in ebullitions assuming various fantastic forms. From the period, however, when the Straits of Calpe, the Bisepharat of Phœnician navigators, admitted the Western Ocean, to give the present form and extent to the Mediterranean, anteriorly supplied with very little fresh water, it may be supposed that the evaporation, being more counterbalanced by the influx, passing mostly eastward in the straits, and still more at a great depth below the surface, raised the sea to a higher level, and caused the circular course, which now, flowing eastward along the coast of Barbary, casts all river deposits, brought down that shore, into the recess of the two Syrtes, and near the summit of the Mediterranean, sweeps onward all the Nilotic discharges. At the commencement of the present superficial terrene system, when the current first acted upon the efflux of the river, it threw, similarly as in the Syrtes, all deposits back upon the coast, and filled the channel of communication from the Red Sea, whose level, somewhat higher, was kept in check by the prevailing northerly winds, until a bank was formed and marshes created, which the same northerly winds, acting upon the sea-shore, would supply with dust, and all other currents of air aided to fill up, until the isthmus was formed, and the delta had advanced to the edge of deep water, when first it came within the force of the real sea current. Thus, a space of 72 miles, from Suez to El-Arish, and nearly

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180 along the sea-coast, from west to east, became a fertile land, where inundation extended; pasturage where it is accessible only in part, and desert or marsh in all the rest.*

On the Syrian coast, the Mediterranean current is first repelled by the rocky soil of Palestine, and turned northward, undermining, in its passage, the sea-wall, formed of enormous stones, at the port of Cæsarea; but, further on, completing, with the sands of Egypt, Alexander's work, at the isthmus of Tyre. Next, at the Calpian Gulf, the foot of Cilician Taurus again turns the current, which, now forced in a direction to the west, is broken into several devious branches by Cyprus, Rhodes, Crete, the Egean Islands, Sicily, the Peloponnesus, and Italy; but still not so entirely but that it is again recognized in the Tyrhenian Sea, and thence sweeping the deposits of the Rhone along the coast of Gaul, and finally allowing the unevaporated portions to pass out at Calpe, or to resume again a new circular course.†

* "It is inferred, from geological data, that the Red Sea, in former times, penetrated to the basin of the bitter lake, and there left high-water marks, distinguishable at the present day; flowing from thence to Lake Mensaleh, thus entirely separating the land of Africa from that of Asia." But Captain Veitch adduces strong reasons against trusting to the operations of nature to excavate for herself a channel, again, in that way, and shows, also, why it would not be expedient to form a navigable channel of still water, with locks, between the two seas, or dependent on the Nile. This statement, drawn from actual survey, leaves no doubt of the primæval separation of the two continents, viewed geologically; and the expected condition of dead water, instead of a current in the channel, should a communication be reöpened, is supported by the fact, that a simple process of nature was sufficient to close it.

† It is the enormous evaporation, and the very scanty supply of river-water in the Mediterranean, that causes its waters to be deemed even more salt than the ocean. The direction of its currents is traced by the species of fishes, periodically entering the straits, from the west coast of Africa, and in those that remain permanently, either in shore, in soundings, or beyond them.

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AFRICA.

Of Africa the most striking feature is the tabular form of its structure, standing immovable, like a huge bulwark, almost centrally beneath the equator, without a plentiful vegetation, — almost without forests; with few undrained lakes, and, consequently, few great rivers, which derive their supplies of moisture from clouds coming from distant regions, and furnishing a diminishing supply; for there is an acknowledged desiccation in progress, observed alike in Morocco, at the Cape, and most in Abyssinia. Perhaps the oldest of the continents, it appears exhausted. With a vigorous animal or vegetable life, thinly scattered, or confined to particular valleys, and with proofs of a desert state so remote that no other region can produce a similar example, — namely, in the Baobabs (*Adansonia digittata*), of ninety feet in circumference, a bulk so enormous as to induce Adanson to assert that they contained full six thousand rings of annual growth, — that is, an age which no other living organic body on earth can claim.* In this great region, the Nile alone, of all the rivers, is of ancient interest in what relates to the History of Man. Though for centuries past little or no addition has been made to the delta, the coast lakes have materially decreased in depth, and the bed of the river is now much higher than in antiquity, since the plain of Thebes is, during inundations, in many parts under water. In Abyssinia, mountains, formerly covered with forests, are become pasture lands; and a large river, the Kibber, which descends from the south-west side of that great mountain system, proceeds obliquely to the eastern coast, and is suddenly arrested at its mouth, under the equatorial line, by a broad beach of

* There are oaks in France, Switzerland, and even in Great Britain above thirty feet in circumference, which may be 3000 years old. A chestnut on Etna, not one of the largest or oldest, left a portion of a side shoot, not containing the inner core or circles, which, nevertheless, afforded 1700 rings of annual growth. Baobabs thrive best on arid plains.

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shingle, through which the waters percolate to the Indian Ocean.

On this side no other facts of interest are offered, excepting the great volcanic spiracles, forming islands far out to the south-east; and a whole range of craters on the outside coast of Madagascar, probably with submarine trunks that connect them with the series on the main coast; and the straits themselves, which, perhaps, were formed by the collapse of a part of the Comoro Islands.

Down the coast, to the Cape of Good Hope, and thence along the western shores to Mauritania, no objects of a direct interest to our present researches present themselves, excepting those clusters of volcanic islands, with craters on peaks of very great elevation, which were believed by the ancients, and by many moderns admitted, to be the wrecks of the Atlantis, recorded by the priests of Sais as the site of a fearful deluge, which, it seems, was confounded with a similar event, already recorded among the devastations of Greece. In the plains of Morocco, among the high lands of Abyssinia, in the bed of the Quorra (Niger), in Congo, and at the Cape of Good Hope, similarly formed table mountains, with precipitous sides and limestone summits, occur, and with deep valleys or flats between them, produced by forces that cannot now be satisfactorily explained. We may add, that while all the ancient adventitious populations have greatly decreased, the indigenous negro races alone continue to expand.

AMERICA.

America, stretching from the Arctic to the Antarctic Circle, has the great chain of cardinating mountains in the same direction, with indications of far more awful convulsions than are remarked on the old continent; for here the nutations of the great ridge, instead of influencing the continent, like the Himalayas, with a gradual action upon their abutting planes,

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have snapped n. ar the fulcrum of its western side, nearly two thirds of the whole length, from Terra del Fuego to California, and sunk that portion of the continent in such deep sea, for many degrees seaward, that scarcely an island remains above water. Freed, it would seem, from the adhesion of the broad surface, as naturally belonging to this side as on the other, and to counterbalance it, as is the case in Asia, the Andes, in their whole extent in the vicinity of the ocean, retain volcanic activity in full force, and consequently heave up, at the present time, as perseveringly as at the remotest periods. They continue to rise with every great shock of an earthquake, perhaps affecting the whole height of the mountains, but certainly the western or maritime side, where successive stages may be traced to a great elevation, and rocky heads, lines of beaches, and shoaling waters, become more and more evident; as if nature labored to recover from the deep a portion of long-lost terrestrial soil.* The multitude of enormous volcanoes in the Andes do not appear to have depressed the east coast to a perceptible submersion, or, rather, to what is more than fully replaced by the deposits of the vast and numerous rivers which intersect the whole surface. It is, moreover, stayed by the mountain system of Brazil, Guiana, and Venezuela, from whence, and from the basins at the foot of the Quindiu Cordillera and the Pacaraima mountains, have been effected many entire discharges of elevated lakes, such as the Amucu and Savannas of Dutch Guiana, while the swamps of the Parana, and the lagoons on the coast, remain unchanged. But at the northern extremity of South America, where the Andes present an interruption in the direct chain, a branch turning eastward, and then to the north, shows a connection from volcanic Trinidad, through the West Indian Islands, till the mountain character, but not the volcanic connection, is lost in the island

* In most volcanic upheavings, there follows a subsidence, — nature endeavoring to return to its anterior equilibrium, — but the result is rarely down to he former level.

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of Cuba. All this enormous surface, from Barbadoes to Vera Cruz, forming the two distinct basins of the Caribbean Sea and Gulf of Mexico, presents many indications of a violent disruption belonging to the present geological superficies of the earth, and perhaps not remote in date from the submersion of Atlantis on the African coast. A series of volcanic craters, still in violent ignition, may have worked on the single mountain ridge, of no great breadth of base, pressed by the unceasing action of the tropical current, laboring in a gyration, which impels the Atlantic Sea, on the north of the equator, and strengthened by the trade wind, broke through the mountain barrier directly opposed to it, perhaps not unaided by the collapsing of the submarine galleries, or struck by some great sea wave, rushing from the African or from the Azorean regions, under the impulse of a mighty earthquake. On examining the Windward Islands, the Grenadines, between St. Vincent's and Grenada, point out where the force of the current was most violent; and the rocky hills, from Tobago to beyond Curaçoa, almost perpendicular on the north, and sloping to the south, attest its continuity through the Caribbean Sea.

WEST INDIES.

The Windward Islands are, in this view, only the remains of a vast mountain chain, still impeding the currents sufficiently to produce a very considerable difference in the sea levels between their east and west coasts; or, as they are obviously checked, according to their respective localities. Thus, in the port of Havana, the sea is thirty-six feet lower than at the north side of Guadaloupe, according to the observations of Jonnes, compared with those of Humboldt and F. de Bellevue. If the great current were not restrained by the islands, and by the coast of Yucatan turned into the Florida Strait, the sea level at the isthmus of Panama, now by some asserted to be twenty-four feet lower than the Pacific, and by others to be

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equal in elevation, or differing only as the tides on either side may be at full, would rise perhaps sufficiently to separate the two great portions of America.

Here, then, we have a not improbable diluvian event in the western portion of the world, sufficient to account for all the traditions locally current, in the supposition that the progenitors of the present population were already in part upon the spot. Some authors have assumed the American cataclysm to be the same as the Atlantic; but what is more evident is the volcanic agency in both, and the ignited galleries passing beneath the ocean, with spiracula in the western African islands, and the Azores completing the electrical circle on this side, as the Kamtschatka volcanoes and the Caroline and Japanese effect on the other.

NORTH AMERICA.

North America, having the Rocky mountain portion of the Cordilleras for central watershed, although it is less disturbed by volcanic convulsion, in proportion as the ridge is further removed from the sea, and has not discharged a great proportion of the inland lakes that weigh upon the eastern plane of its surface, is nevertheless not so free of igneous agency as to escape the West Indian ramification, which passes through the Floridas and South Carolina, to the plain of the Mississippi, where earthquakes left permanent tokens of their force in 1811. Over a considerable part of the eastern side of the great mountain ridge, more particularly where ancient lakes have been converted into morasses, or have been filled by alluvials, organic remains of above thirty species of mammals, of the same orders and genera, in some cases of the same species, have been discovered, demonstrating their existence in a contemporary era with those of the old continent, and under similar conditions. But their period of duration in the New World may have been prolonged to dates of a subsequent time,

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ance the Pachyderms of the United States, as well as those of the Pampas of Brazil, are much more perfect, and, in many cases, possess characters ascribed to bones in a recent state. Alligators and crocodiles, moreover, continue to exist in latitudes where they endure a winter state of torpidity beneath ice, as an evidence that the great Saurians in that region have not yet entirely worked out their mission; whereas, on the old continent, they had ceased to exist in high latitudes, long before the extinction of the great Ungulata. The vast extent of sandy alluvial territory, from the Gulf of Mexico to the summit of Long Island, appears as if it were a late deposit, in part debris of the Mexican and Caribbean portions of the continent, carried north, and thrown off when the Gulf Stream was formed. At the mouth of the Mississippi, the sea, of small depth along the whole coast, continues to recede before the delta of the river; and the Florida and Carolina shores northward form a series of lagoons on the ocean side. The stream rushes onwards in a north-east direction, and with a gradually decreasing velocity and temperature (though both are still very perceptible off New York), until it is finally neutralized at Nantucket, and the last particles of deposit suspended in it are precipitated to form the banks of Newfoundland. A continent torn asunder and washed away alone could furnish the immense alluvial surface and submarine banks here noticed. The rivers of the United States and Canada are not of a nature to have added more than feeble deltas, such as that of the Hudson at Sandy Hook. Great changes are commemorated by the Indians in their mythological and legendary tales, both in the direction of the tides and in ancient accumulations of ice.*

THE PACIFIC.

The Pacific and South Seas are likewise replete with evidence of great geographical mutations; some have already

* See Appendix.

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been noticed, and the active progress of coral reefs proves the vast proportion of space beneath the waves, either still sinking lower, or again in a reäscending state. Volcanic cones, far from continents, like flaming beacons at sea, towards the South Pole, as Hecla is in the north, may be elaborating elements for future geogonies, or heave up regions now sunken, on the southern side of the equator, more particularly where a peculiar zoology, living and fossil, appears to point out that one existed at an anterior period; and, by the evidence of the great Struthionidæ, such as Dinornis, only recently extinct, that animals of such bulk were not originally confined to islands not larger than New Zealand; which, moreover, is replete with craters nearly all dormant.

The foregoing statements have been submitted, in this place, somewhat more at length than the nature of the present volume would seem to warrant; but we apprehend, no view of the primeval history of Man can be complete, without reference to the conditions of existence which obtained in the first more calamitous ages of his presence on earth. Though particular points in the changes here alluded to may be doubted or denied, still sufficient will remain to substantiate the influence they must have exercised upon human distribution, upon man's earliest wanderings; and they will finally establish, we think, the fact of his coëxistence with the *latter period of the great Pachydermous era.* We have, in fact, both sacred and profane authority for diluvian convulsions of great magnitude, when the earth was inhabited by human families, in quarters very distant from each other, and when many genera of animals may have perished. If, in the opinion of geologists, more than due importance has been ascribed to the action of volcanoes, the answer is, that the violence of subterrene fires was unquestionably much greater, and its presence much more generally manifested, than in succeeding ages; since it can be shown

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that scarcely one fortieth of existing craters is now in activity, or about one hundred in four thousand; and yet, that there are still about two thousand eruptions in a century, or about twenty per annum. Moreover, Iceland offers a comparatively recent example to what extent a volcanic eruption may ruin a great region of fertile country. Since this was written, another devastation has taken place in the same island.

BONES OF MAN AMONG ORGANIC REMAINS.

For the further illustration of this important question, it is requisite to examine whether the organic remains of extinct animals, found in the soil, and chiefly in limestone caverns and clefts of rock, are accompanied by human remains, bearing similar characters of antiquity. Although, as yet, few systematic researches on this head have been made, even in Europe, and it is likely that in many bone deposits no human exuviæ have been noticed, still a sufficient number of instances attest to the fact, and leave the question open only on the ground that they were accidental cases, not belonging to the same period.* Donati, Germer, Rasoumouski, and Guetard, maintained that human bones had been found intermixed with those of lost species of mammiferæ, in several places. They had been detected in England,† in caves and fissures, enumerated by Professor Buckland; they were found at Meissen in Saxony, and at Durfort in France, by M. Firmas. A fossilized skeleton, found in the schist rock, when excavating the fortifications of Quebec,

* Baron Cuvier, in the last conversation we had with him on the subject (in 1824), admitted that although the human fragments discovered at Cette, near Monaco, and in the caves of the Apennines, might be more recent, the opinions then in vogue would require considerable modification.

† At Kirkby, in Yorkshire, in 1786, in the fissures of a limestone quarry.

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in part preserved in the museum, at the seminary, excited no attention; and the well-known Guadaloupe skeletons, one of which is now in the British Museum, had been pronounced recent upon hypothetical reasoning. Those discovered by M. Schmerling, in the Liege caverns, were similarly disposed of, and the reports of Dr. Lund, residing at Lagoa Santa, in Brazil, respecting partially petrified human bones, found by him in the interior of the country, and represented to have been in the same condition with those of numerous animals now extinct, which accompanied them, attracted no more than credulous attention, although they were represented to have belonged to that singular flat-headed form of man which will be noticed in the sequel.*

But the fact of juxtaposition of the bones of extinct mammals and of man recurs so often that some may be mentioned more in detail, thus: — In the caverns of Bize (department of the Aude), in France, human bones and shreds of pottery were found in red clay, mixed with the debris of extinct mammalia, among which were recognized those of *Ursus arctoideus*, *Cervus anoglochis*, a species equal in size to the common Stag; *Cervus Reboulii*, *Capreolus Tournalii*, and *Lefroii*, *&c.*

Soon after, the celebrated Marcel de Serres examined the caverns of Pondres and Souvignargues, and detected the remains of human skeletons and pottery in the same deposits with bones of a lost species of Rhinoceros (*R. tichorinus*), a small kind of Equus, and a Stag (*Cervus cataglochis*).

On the Rhine, skulls of gigantic Bisontes and Uri occurred, and Dr. Boué found human bones mixed with others of extinct species at Lahr. In the vicinity of Xanthen, beneath an altar-stone, the head of a *Cervus giganteus* (Irish Elk), and a quantity of ashes, were discovered.

* Dr. Lund has since discovered another deposit of fossilized bones, in the province of Minas Geraes, along with several entire human skeletons. He enumerates, in the same deposit, forty-four species of extinct mammals, among which the horse occurs abundantly.

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In 1833, human bones were found, together with those of *Ursus spelæus; U. angustidens*, Hyena, and a Feline not much less than a lion, Elephant, &c., were detected in caves near Liege, beneath a thick coat of stalagmite. About the same period, the Rev. Mr. M'Enery collected from the caves of Torquay human bones and flint knives, amongst a great variety of extinct species, such as Elephant, Rhinoceros, *Ursus angustidens*, Hyena, &c., all from under a crust of stalagmite; and reposing upon it was the head of a Wolf.

Before that period, and repeatedly since, caves have been opened by quarrymen, at Oreston, near Plymouth, several of which had bones, such as Elephant, Rhinoceros, Ox, Horse, Hyena, and abundant coprolites, denoting that they had been the dens of Carnivora. Among them we detected the upper portion of the humerus of man, which was immediately thrown away upon being pointed out to the possessor!* Other caverns exist in the Plymouth Hoe; and, no doubt, also beneath the present level of the sea, for several teeth of Elephants have been washed up by the surf. Other deposits have been found at Yealm bridge, and most of the bones applied to mend the roads, before scientific men had notice of the discovery. Those at Kitley, we believe, have not been disturbed; but eastward, human bones, with their usual accompaniments, have been collected from a cave near Brixham, by the Rev. Mr. Lyte and Mr. Bartlett. There were, in this deposit, shreds of pottery, like those of the caverns of Bize, in France; and it is said the locality bore evidence of smoke, which renders it probable that it had once been inhabited by troglodyte savages. Fragments of pottery were discovered by Captain M'Adam, in the escarpment of calcareous breccia, at least 200 feet above the level of the sea, and about 100 beneath the vertex, five miles north of

*This is not the only instance of the kind. Collectors, in the plenitude of ignorance and prepossession, determined that human bones were of no consequence. — See Appendix.

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Monte Nuovo, near Naples; and not within the sphere of action when that crater rose out of the earth.

VALE OF KOSTRITZ.

An instance more remarkably clear, because more carefully observed, is that of the vale of Kostritz, near the river Elster, in Upper Saxony, where, about fifty years ago, gypsum quarries were opened, in a generally undulating country, sufficiently elevated to preclude all supposition that inundations can have had the least influence on the deposits, since the present geological arrangement, and without external evidence of the existence of any caverns. The soil is of the usual red loam, which, both in France and in England, encloses organic remains, and here, as in South Devon, covers the limestone formation of the whole country. Masses of stalactites occur beneath the surface, and, at the depth of twenty feet, bones of large land animals were discovered in the loam of the greater cavities. At Kostritz, in particular, the gypsum is intersected by caves and fissures in every direction, and connected with each other, but filled throughout with red alluvial clay, containing in clusters bones of mammalia, and, among them, of man. They were first described, in a lucid manner, by Baron von Schlotheim, who summed up his account by saying: — "It is evident that the human bones could not have been buried here, nor have fallen into fissures during battles in ancient times. The human bones are few, completely detached and isolated. Nor could they have been thus mutilated and lodged by any other accidental cause in more modern times, inasmuch as they are always found with the other animal remains, under the same relations, not constituting connected skeletons, but gathered in various, groups," &c. Beside those of man, of different periods of life, from infancy to mature age, the bones of Rhinoceros, a great Feline, Hyena, Horse, Ox, Deer, Hare, and Rabbit, bones of an Owl were found; and, since the paper of the baron

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was published, portions of a small Elephant, of Elk and Reindeer, — facts which, in this case as in others, confirm the coëxistence of species in the present zoology, on the same area.*

Of man, fragments are in the possession of the Prince of Reuss, Baron von Schlotheim, Dr. Schotte, and other individuals residing near the spot; and Mr. Fairholme, who went purposely to Saxony to convince himself of the facts by careful examination of the locality, brought home specimens, which he presented to the British Museum. It appears that all the bones are not precisely entombed within the caverns or the fissures, since the fragment of an arm and the thigh-bone of a man were dug out of the clay at eighteen feet of depth, and eight feet below two phalanges of a Rhinoceros.

As the facts relating to the coëxistence of human remains with the bones of a mostly extinct mammalogy can no longer be denied, it remains to be ascertained whether the explanations that have been offered with a view of proving that they are of a more recent date, can be substantiated. Those found in the clefts of lime rock in England (1787) were reburied or thrown on the public road, without further notice. The late Rev. Mr. M'Enery disposed of those he found, without examination; and, as it appears to us, his replies to our interrogations, and his letter, afterwards published, did not exactly coincide, since there was some disparity in the bones not being all found above the stalagmite, but partly below. The criterion for pronouncing on the age of vertebrata remains, we believe, rests solely, beside the circumstances of location, upon the absence or presence of animal matter in them. In the first case, a bone sticks to the tongue; in the second, it is not adhesive. No series of

*Cuvier remarked the coëxistence of Elk, in all respects appearing to be identical with the present, the Asiatic elephant, and other tropical animals, in the same deposits.

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experiments, elaborately made, so far as we know, has yet determined to what extent the criterion can be trusted. Mr. Franklin Bellamy, with his usual patient caution, submitted a portion of bone from the Yealm Bridge Cave, weighing one drachm; and also a piece of bone, of the same weight, taken from one by the road-side, that might have been exposed for many months. Each was placed in a separate glass vessel, containing diluted muriatic acid. As soon as the fossil bone was immersed, a violent action commenced to disengage carbonic acid; gradual corrosion, or removal of earthy matter, succeeded, and in the space of seven hours the bone was reduced to a spongy, flocculent mass, which, having become lighter than the fluid, rose to the surface, in the shape of a mere pellicle. This, being extracted, weighed eleven grains. In the other vessel, a quiet and gradual escape of gas took place. In the space of seven hours the earthy matter had been extracted to one half of the depth of the piece; and after the process was complete it remained at the bottom, and retained the original form of the immersed fragment. It was fibrous, soft, highly flexible, and elastic, and weighed eighteen grains. By adding sulphuric acid to the liquor, after removing the masses of animal matter from both vessels, sulphate of lime was obtained; and, when weighed, they were found to correspond very nearly The fastidious caution of Mr. Bellamy did not suffer him to regard this experiment as conducted with the greatest nicety. At our request, he submitted a metatarsal bone of Hyena, from the same cavern, to immersion in one sixth of muriatic acid to five sixths of water; but in this case, after the earthy matter was thrown off, the animal substance remained so abundant that the bone retains its complete form, is only translucent, and remains at the bottom of the liquor, as if it were a recent specimen, of which it preserves all the characters.

Pieces of human skull, from a sub-Apennine cavern, in Tuscany, probably not less than twenty-five or thirty centuries old, appeared thoroughly fossilized, or rather entirely deprived

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of animal juices, and in a chalky state. On examination, in proper chemical tests, by Dr. Armstrong, of the Royal Naval Hospital at Plymouth, and by Mr. Oxland, chemist, both gentlemen came to conclusions which did not invalidate Mr. Bellamy's investigation, though they presented a smaller quantity of gelatine or animal matter than was obtained from the bones above mentioned. Human bones, from the Brixham Cavern, were said to be recent, though they appeared to us as if the extremities had been gnawed, and marks of teeth were traceable at the sides. Not far from the cave where these remains were found, there was dug out of the sand a thoroughly fossilized head of a Deer (*Rangifer?*), within a few feet of a humerus of some great feline, not less than a Panther, but having all the appearance and color of a recent bone. Great dissimilarity exists in the conditions of the bones of extinct mammals, undoubtedly arising in part from their relative ages, but still more from the localities where they are found deposited. Those of Megatherium, often discovered on the surface of the Pampas of Brazil, necessarily differ from bones located in clefts of limestone rocks in the same country. Again, there is a change between these and the Mastodons of the clayey bone licks of North America and gravels of England; and, still more, between those of the Asiatic Mammoths, which are so perfectly fresh that bears have devoured the flesh after many ages of preservation in ice or frozen earth. The bones found in Gibraltar breccia are not in the same condition as those dug out of the red loam or clay beneath stalagmites. They are dissimilar even in the same caves, and therefore we may infer that the criterion whereby their age is to be determined is exceedingly questionable, and, consequently, that human bones found among them, and under similar conditions, should not be made exceptions upon hypothetical assumptions, but treated similarly with those around them. No new theory of guesses should be admitted for every recurring case. With regard to the pretence that they may have dropped into the

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caves, it is to be observed, that few of these receptacles have been found to have perceptible openings, excepting such as have been accidentally made in later times. Besides, no accident could place them under the stalagmite subsequent to its formation. When recourse was had to the supposition, that after the ossiferous formation was completed, either by deposits caused by floods, by the gradual accumulation produced through the intervention of resident carnivora, or in any other way, they were buried in the caves, without considering that savages, who, as the presence of flint knives proves, could, with such implements hardly break through the dense stalagmite crust, and, from their nature, would scarcely be willing to effect a passage through what must have been viewed by them as solid rock, when, within the distance of a few yards, they would bury a relative, worthy the trouble, with ease, in the common soil.* If, in truth, the human bones found among the others had been placed in those receptacles by the hand of man, there would be tokens of human care; they would be found connected, and the skulls, by far the hardest bone and longest preserved, would not be wanting, as they generally are; nor, in that case, would the human remains be deprived of animal juices, exactly in the same condition as those in the bones of extinct species, — that is, varying according to circumstances, as they occur in both. With regard to the evidence attempted to be drawn in support of the theory that the human remains are more recent, because fragments of pottery have been found with them, and, in one case, that the cavern indicated the effect of smoke, it is surely unnecessary to remark that savages are still human beings, who make use of fire and of earthenware, particularly in cold and temperate climates, provided they are not nomads; therefore, that the presence of human bones indicates the existence of both fire

* To a comparatively late age, when tools were not wanting, human bones are found deposited very near or on the surface; not buried, but covered with heaps of stones or earth, forming cairns or barrows.

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and culinary utensils. Cuvier, more profound and more cautious, simply replied, "Pas encore," when he was asked whether human bones, proved to be coëval with those of extinct mammalia, had yet been discovered. This was in 1824.*

TRADITIONS RESPECTING EXTINCT SPECIES.

Though the remains of *Mastodon angustidens*, found on an elevated site of Peru, of Toxodon, Macrauchenia, and Mylodon, may, in America, point to a more remote antiquity, the bones of Megatherium, in Brazil, are on or near the surface, in a recent state, and in the same condition as those of Horse, often accompanying them, whose bones are, nevertheless, accepted as belonging to an extinct species. Now, could they have resisted disintegration during four or five thousand years, considering both of these to have lain exposed to, or, at least, within the influence of a tropical sun and the periodical rains? Yet they occur often on the surface, and the bones of the pelvis have been used for temporary fire-places, by the aborigines, wandering on the Pampas, beyond the memory of man. In North America, although such remains as are now usually discovered have lain sunken in clay or mud, deposited by former lakes, the fact is not invariable; and exclusive of Dr. Lund's discoveries in Brazil, there are native legends which indicate traditional knowledge of more than one species. Such is that of the great Elk or Buffalo, which, besides its enormous horns, had an arm protruding from its shoulder, with a hand at the extremity (a proboscis). Another, the *Tagesho*, or *Yagesho*, was a giant Bear, long-bodied, broad down the shoulders, thin and narrow about the hind quarters, with a large head, powerful teeth, short and thick legs, paws with very long claws, body almost destitute of hair, except about the hind legs; and, therefore, it was called "the Naked Bear." Further details are fur-

* In this, as in other cases, Cuvier made it a rule to answer only for his own personal observation; and the human skulls found in the Apennines he considered as demanding further research. — See Appendix.

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nished by the Indians, which, allowing for inadequate terminology, incorrectness in tradition and translation from the native dialects to English, leaves a surprisingly applicable picture to a species of *Megatheridæ*, perhaps the *Jeffersonian Megalonyx*. The colossal Elk, another name for the Mastodon, or *Père aux Bœufs*, points out that with designations of existing species the Indians describe extinct animals with a precision which, in the state of their information, nothing but traditionary recollection of their real structure could have furnished. We remember seeing, in the United States, a rib, supposed to have belonged to a fossil ungulate species, which bore undeniable marks of a wound, apparently given by some sharp instrument of human invention.

Tradition, in the East Indies, similarly mentions the *Aula*, or *Auloc*, Elephant-horse, a solid, ungulated proboscidean, supposed to be figured in Kindersley's specimens of Hindoo literature, where the Macaira, represented in Budha zodiacs, is again seen beneath the monster horse, and, still more singularly, bears the same form in a Peruvian bas-relief, always resembling the presumed figure of *Dinotherium giganteum*, or, rather, with the characters of an aquatic proboscidean.

The Uri and Bisontes, of the Hercynian Forest, have disappeared, and the Machlis of Cæsar, if it was identical with the Sech and Schelch, of the middle ages, and the same as the Irish Elk, by Breton bards transmuted into the Questing beast of romance, was a real existing species, so late as the eighth century, and, perhaps, even to the fifteenth. It is, nevertheless, an extinct animal, and its bones are found under circumstances similar to the Megatherium of America, and nearly in the same chemical condition. Next, we have the exuviæ of existing species, exclusive of Horse, Beaver, &c. The Elk is not unfrequently found among those of extinct animals, in the same regions where that ruminant now resides; and we ask by what theory, compatible with the sentence pronounced upon others, these are to be disposed of?

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HUMAN OSSUARIES, WITH BONES OF EXTINCT ANIMALS.

Now, the inference which we desire at present to draw from the foregoing facts, is, solely that the extinction of several lost species of the so-called fossil mammalia was not entire, nor anterior to the first appearance of man on earth, nor even to his dispersion over the greater part of its surface; and, therefore, that the asserted alteration in the atmosphere, by the increase of carbonic acid gas, if it did not affect their vitality, must have been shared by man, and, at most, can have operated only by very slow degrees.* In order to show this probable coëxisting state, other caverns may be mentioned, which were discovered in the calcareous mountains of Quercy, in the commune of Guienne, district of Figeac, and department *du Lot*, nearly in the centre of Southern France. They occur, chiefly, on two mountains, on opposite sides of the valley, at an elevation of more than 300 metres (nearly 1000 feet) above the river Sélé, and at a locality which appears to be connected with circular and rectilinear fortifications, whereof the ruins bear a resemblance to what are commonly called Cyclopean walls, such as occur in Asia Minor, Greece, and Italy. Here it is that an unknown people actually did bury, or, at least, made ossuaries of the dead, at a period so remote as in all probability to be anterior to the arrival of the historical Celtæ, who were themselves colonists ere the Gauls established their power west of the Rhine. The people in question, though barbarian, was not a mere assemblage of savages. It was stationary, if we can

* Captain M'Adam, in MS. Lectures, gives the English coal formations alone to have returned, —

Oxygen, ...	7,706,700,800 cubic feet.
Absorbed carbonic acid, . . .	3,128,530,809 cubic feet.

But since the remains of birds, of marsupials, &c., are discovered, belonging to the eocene period, there does not seem to exist any reason for presuming a marked atmospheric difference could prevail, since the more perfect vertebratæ were in being.

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trust the defensive structures to have been its work, and had social institutions, at a time when the Rhinoceros and extinct Reindeer had not departed. An obscure and remote tradition pervading the present inhabitants, that, among other localities, there existed caverns on the right side of the river, replete with wondrous treasures, an entrance into one was at length searched for, and in 1825, digging in a spot judged to be favorable, at the depth of three feet, the excavators found a human skeleton, and an iron tool of a forked shape. They continued to sink a shaft to the depth of eighteen metres, about fifty-six English feet, until they encountered a stone barrier of human workmanship; and having forced a passage, the workmen discovered three branches or natural galleries, and passed by one of them into the desired cavern. Instead of treasures, however, human bones were found in great quantities. They were mostly disposed in the crevices of the rock, with evident care, and others were pressed regularly into a cavity, and covered with a flat slab, surrounded by a circle of very clean white stones. By the precautions that had been taken to block up every entrance with walls of stone, and the success with which it had been performed, — (since the shaft by which an opening was forced did not reach the real entrance), — the whole manifested that it had been a tribal necropolis, formed with great respect for the dead, at the same time that a strong impression was created of its remote antiquity, from the circumstance of these human remains being accompanied by the head and three teeth of a Rhinoceros, antlers of a small species of Reindeer, the head of an extinct species of Stag, the shoulder-blade of a very large Bovine, and the canon bone of a Horse. In this case, we hear of no stalagmite, no red loam; there is no mention of Hyenas or other carnivorous animals, and only a few remains of herbivora, which may have been deposited in the human ossuary, because they had served for sacrificial purposes in honor of the dead. It is not probable, if they had been found in the locality, when cleared for a sacred purpose,

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that there would not have been any more, and in company with debris of carnassiers, or that they would not, in that case, have been removed, without exception. If the ossuary was formed by progenitors of Basque, Euscarra, or Cantabrian tribes (the most ancient marine Hyperboreans of the Quralian or Finnic stock in Western Europe), the presence of sacrificial heads and antlers would call to mind a similar practice still in vogue among the kindred pagan tribes in the Arctic regions, where Elk and Reindeer horns invariably decorate the tumuli of the dead, and would substantiate the inference that the lost herbivoræ here mentioned, including a Rhinoceros, were still existing at a time when the people in question were already settled in Southern Europe.

From the foregoing observations, we have no grounds for objecting to the coëxistence of man with departed species, and we may naturally expect his debris to become more abundant, in proportion as the others are less numerous, and will contain an increasing number of the last extinguished, or of such as are still in being: — Ruminants, among which may be reckoned Wrus, Bison, Elk, Reindeer, Sheep; and Carnivora, more particularly Bears, Felinæ, and wild Canidæ, whereof the Wolf is among the latest.

We have adduced the foregoing facts and inferences, not so much to establish the implied dependence that should be placed upon them singly, but as inducements for the general reader to bear them in mind as a whole, without which the conditions of human life, in a primeval state, such as man's distribution and earliest migrations, cannot be fairly reviewed. Thus much we have deemed necessary, foregoing, at the same time, to search beyond the later age of the great pachydermous distribution.

In a mental physiological retrospect, we might, perhaps, fancifully, but not without truth, cast a pictorial glance over the aspect of organic nature, as it may have been presented to the

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light of day in the brightness of youthful creation, with verdant meads and dense forests, composed of botanical families still extant, abounding in Palms of different genera, in species of giant *Arundinaceæ* and Marsh Plants, at this day flourishing in warm regions. Imagination might behold remaining Pachyderms on the borders of lakes; huge Ruminants swarming on the plains; Saurians not as yet reduced in location, and numbers basking or floundering on the banks of the waters; Hyenas by the borders of the wood, or glaring from opening caverns; and, perhaps, a distant solitary column of white smoke ascending from the forest, the certain indication of Man's presence, as yet humble, and in awe of the brute monarchs around him; possessing no weapons beyond a club, nor a tool beyond a flint knife; timid on earth, because he is still unacquainted with his own rising superiority over other animated beings, though they be more powerful than himself; and ignorant of his destiny to survive their duration of existence, though he may already have witnessed convulsions, which, while they tend to benefit him, and set bounds to the rest, are yet causes of apprehension, because he cannot wholly escape their operation.

Whether such a condition of life, one that may be seen at the present time in those regions and latitudes where the active-minded European has not yet overturned the old innate habits of savage life, — whether such an existence dates so far back as 6000 years, or 7322, according to Professor Wallace, or does not amount to forty-two centuries, is not, in our view, a question of importance; since, between the dates of Man's creation and the present, there is abundant proof, not only of one general diluvian catastrophe, but, also, of many others more or less important; and these alone, in a great measure, are sufficient cause for the dispersion of Man to all the points of the earth where he is found to reside, and in many places where the marks of his presence evidently date back to a very remote period.

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EXISTENCE OF MAN AS A GENUS, OR AS A SINGLE SPECIES.

ALTHOUGH the existence of Man upon the face of the earth, to a very remote period, cannot be denied, it still remains a question, in systematic zoology, whether mankind is wholly derived from a single species, divided by strongly marked varieties, or sprung successively or simultaneously from a genus, having no less than three distinct species, synchronizing in their creation, or produced by the hand of nature at different epochs, each adapted to the peculiar conditions of its period, and all endowed with the power of intermixing and reproducing filiations, up to a certain extent, in harmony with the intermediate locations, which circumstances, soil, climate, and food, necessitate. Of these questions, the first is assumed to be answered in the affirmative, notwithstanding the many difficulties which surround it; and a very recent author, of undoubted ability, has gone so far as to conclude that man necessarily constitutes but one single species. The inference, at first sight, appears to repose almost wholly upon authority without physiological assent, excepting where physiology itself rests again upon an assumed conclusion. Now, with regard to the second proposition, notwithstanding an unnecessary multiplication of species successively adopted by other philosophical physiologists, it cannot be denied that, by their hypothesis, many phenomena, most difficult of explanation, are solved in a comparatively natural way, and so far deserve more implicit confidence. For the first, scientifically taken, reposes mainly upon the maxim in natural history, which declares, "*That the faculty of procreating a fertile offspring constitutes identity of species, and that all differences of structure and external appearance, compatible therewith, are solely the effects resulting from variety of climate, food, or accident;*

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consequently, are forms of mere varieties, or of races of one common species!"* The second, on the contrary, while admitting the minor distinctions, as the effects of local causes, regards the structural, taken together with the moral and intellectual characters, as indications of a specific nature not referable to such causes, albeit the species remain prolific by inter-union, which, according to them, are the source of varieties and intermediate races.

In systematic zoological definitions, the first may be regarded as sufficiently true for general purposes of classification; but, physiologically, it cannot be assumed as positively correct, since there are notable exceptions, most probably in all the classes of the animal kingdom, from the lowest up to the most complicated; and, therefore, when applied to mankind, it is of little weight, since even the exceptional law, assumed by the writer who regards the human races as necessarily of one species only, is more likely to operate in the usual generical form of animated beings, than by acting inversely, granting to one specified type the attributes that belong, in all other instances, to a genus; and so far supporting his own doctrine of a progressive creation. In physics, dogmas are admissible only so long as they are not disproved. Since the fissiparous propagation of some animals is established, "Omne animal ex ovo" is no longer asserted to be a universal maxim, nor that all parturition of mammalia is derived wholly from uterine gestation; for, without referring to classes of a lower organization, fertile offspring is obtained among several genera of brute mammals, from the union of two or more so-called distinct species; or the definition of that word is several ways incorrect. Frederic Cuvier, sensible of the fallacy embodied in the maxim above quoted, endeavored to prop it up by an argument drawn from the asserted gradual decrease of prolific power in a breed of

* Buffon and Cuvier have made their definitions somewhat more complicated, but essentially the same

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hybrids, obtained from the union of a Wolf and Dog, reared by Buffon; an experiment often referred to, but not carried out with the care and perseverance required to render it of substantial weight.

We have, for example, among carnassiers, the Wolf, Dhole, Chakal, and Dog; that is, all the diurnal canidæ, if the dogma were true, would form only one species, diversified merely by the effects of chance, food, and climate, though all of them reside together in the same regions, such as India, and maintain their distinctions; or the species *Canis* alone, as now classified, must offer the union of three or more, aboriginally different. This is plainly indicated by the great inequality in the number of mammæ; for they are not always in pairs, and vary from one individual to another,—from five and six, to seven, eight, nine, and ten.* No condition of existence that we know of can produce such an anatomical irregularity, without a presumption that it arises from the intermixture of different types; and the opinion is further borne out, by other structural differences in dogs, strictly so called, amounting to a greater diversity of forms than there are between that species and the Wolf, Dhole, or Chakal; differences which maintain themselves, with very slight modifications, in the extreme climates, whither Man has conveyed the various races, large or small, and amounting, in some cases, to greater hindrance to the continuation of so-called varieties than are recorded to have obstructed the experiment between Wolf and Dog already noticed.

The *Felidæ* offer another instance of blending two or more species without apparent difficulty. The breeds of the domestic cats produce, with the wild species of the Himalaya Moun-

* On the property of a relative, there was lately a bitch, of the Spanish mastiff breed, twenty-nine inches at the shoulder, who brought forth twelve puppies at one birth; indicating even a greater disturbance in the original species, and proving that mastiffs are by no means as sterile as is pretended.

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tains, the booted of Egypt (*Felis maniculata*), the wild Indian (*Felis pennantii*), and the original tortoise-shell, — all regarded as distinct; yet remaining prolific, with but small appearance of being varieties.*

Among Pachyderms, the Horse, and, still more evidently, the domestic Hog, by the great irregularity in the vertebral column, &c., indicate a plural origin.

Again, in *Ruminantia*, Goats and Sheep intermix, producing permanently fertile hybrids; although the genus Ovis, exclusive of the Argalis, offers several species in a wild state, which have themselves every appearance of being the types of different domestic races, that have been blended into common sheep after they had been separately subjugated. Such are the *Sha*, a species of Little Thibet; the Koch of the Suleimany range, having only five molars; the Persian Sheep of Gmelin; and the bearded or Kebsch of Africa, which is sufficiently aberrant to have been placed in a sub-genus, denominated *Ammotragus*.† Another example may be pointed out in the promiscuous breeding of common cattle with Zebu (*Bos Gibbosus*), a species born with two teeth already protruded); with the Gayal (*Bos Gavæus*); and with the grunting Ox (*Bos Pŏephagus*).

Finally, let one more instance be named from among the *Rodentia*, where the Hare and Rabbit of Europe, and the variable Hare of America, produce a continued progeny; more particularly when the hybrids are again crossed with one or other of the pure species — a condition likewise the case with all the foregoing.

* There is, besides, the brown black-footed cat of north-eastern Russia, and others that may claim a distinct origin; but whether the Jaguar of South America, and the black variety (Jaguarete), forming a common cross-breed with the Leopard of the old continent, in our itinerant menageries, be successively prolific, is not satisfactorily determined, though the hybrids so obtained are asserted to be both stronger and healthier than a genuine breed.

† I believe, by Mr. Blyth, who first distinguished several of the above species.

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Those who, in the eagerness of defending a dogma, have erroneously assumed that the conditions of hybridism, among animals in a state of nature, were well understood, have likewise asserted that they were confined to domesticated animals, or, at most, to cases where one of the parents was domesticated; and therefore, in all cases, formed vitiated, degraded, and exceptional instances, should likewise have reflected, when the question is raised respecting the specific distinctions of Man, that if his influence be thus powerful upon the brute creation, it should not be denied to be still more efficient between the species of his own genus, where the degradations inflicted by slavery, and the corruption of so many varied institutions, have an empire independent of climate and food in much more durable operation.

Enough, we deem, has been said, to satisfy the reader of the exceptional character of the definition above quoted, and, therefore, that it is not one to be assumed, with confidence, on the question of the typical forms of Man.

Reverting to Buffon's experiment of breeding between the Wolf and Dog, intended by him more with a view to ascertain the reality of their common origin, or specifical identity, and by Frederick Cuvier pointed out as solved, because, according to his view, it established an increasing sterility in the successive generations, we have already stated, that neither sufficient care nor continuity was given to the experiment; and that one single pair, of homogeneous origin, continuing propagation through successive offspring, without a single cross of renovating blood, would, in all probability, end in similar sterility, or at least in sensible degradation. Hence it remains to be proved, whether it would not hold equally between two such dissimilar forms of Man, as a typical African negro and an European conducted upon the same principle, of admitting no intermixture of a single collateral.* We doubt, exceedingly, if a

* It is even pretended, by many white colonists, that no negro woman,

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mulatto family does, or could exist, in any part of the tropics, continued to a fourth generation, from one stock: perhaps there is not even one of five generations of positive mulattoes (hybrids in the first degree), from different parents, but that all actually require, for continuity at least, a long previous succession of foreign influences of white or negro, mestise, quartroon, sambo, native Indian, or Malay blood, before the sinew and substance of a durable intermediate race can be reared.

When the case is referred to Mongolic blood, placed in similar circumstances, or when merely kept approaching to equal proportions with that of a Caucasian or Ethiopian stock, or even with any very aberrant, the effect would be the same. If the moral and instinctive impulses of the beardless stock be taken into account, they will be found to operate with a singularly repulsive tendency. Where the two types come in contact, it produces war, ever aiming, on the Mongolic side, at extermination, and in peace striving at an absolute exclusion of all intercourse with races typically distinct. In the wildest conquering inundations, lust itself obeying its impulses only by a kind of necessity; myriads of slaves carried off and embodied, still producing only a very gradual influence upon the normalisms of the typical form, and passing into absorption by certain external appearances, with very faint steps.*

War and slavery seem to have been, and still are, the great elements, perhaps the only direct agents, to produce amalgamation of the typical stocks, without which no permanent progress in the path of true civilization is made. From war has resulted the intermediate races of man, in the regions where the typical

having borne a mulatto child, is ever after the mother of a black! She becomes, they say, in that respect, sterile. But surely this must be very doubtful, although our researches do not invalidate the assertion.

* This aversion to interunion with the bearded races is a result of experience, proving the superior activity of those who have sprung from such races, and become conquerors. Genghiz, Timur, and Nadir Shah, were directly, or in their ancestry, descended from Caucasian mothers; and hence, also, the jealous exclusion of European women from China.

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species overlapped, strove for possession, and were forced to withdraw or to submit to absorption. Periods of repose seem even to be requisite before new influences are efficient; and thus, by degrees, commences that state of amalgamation which the necessities of the case, and the conditions already mentioned, prescribe to generate secondary forms of Man, by combinations, where new habits, new dialects, new articles of food, together with at least change of climate in one of the constituents, had their legitimate sphere of action. It is thus, where the foreign influence of infusion is modified by a change of climate, that mixed races spring up and have a continuous duration beyond the pale of their primitive centres of existence, until the ground is contested by the purer races, when they fall a prey to the victors, are exterminated, absorbed, or perish by a kind of decreasing vitality, or are entirely obliterated.*

The centres of existence of the three typical forms of Man, are, evidently, the intertropical region of Africa for the woolly-haired, the open elevated regions of north-eastern Asia for the beardless, and the mountain ranges towards the south and west for the bearded Caucasian. But, with regard to the western hemisphere, it may be asserted that it is not a centre of any typical stock, since the primeval Flatheads have already disappeared; and, though the partial population of the bearded form had been overwhelmed by the Mongolic, it is in turn now fast receding, and the woolly-haired, brought in chiefly by modern navigation, it may be foreseen, will ultimately secure to itself a vast homogeneous region, without other change in characters than slight intermixture, advancing education, and local circumstances, can effect.

Although, on debatable ground, a race may be dislodged, evidence of their having had possession of it remains in the population of the more inaccessible mountains and forests; and

* Yet this apparent obliteration must ever affect subsequent forms and mental conditions in the victors, which the physiologist ought to bear in mind, where known, or indicate when only suspected.

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this fact is still oftener observable when distinct races of the same type have contested the tenure of the soil. We see both these cases repeatedly exemplified in all the more isolated mountain systems, for the chains are guides to further progress. It is shown in the Neelgherries, the Crimea, the Carpathians, the Pyrenees, the Alps, the Atlas, and even in the group of Northern South America — all the residence of very different tribes, driven to take refuge in them at various periods, and a single ridge or valley often separating people totally distinct in religion, language, and aspect. The conditions of their several states of existence often produce a more certain and impressive history of the transactions in foregone ages, in a given country, than its best chronicles afford.

Thus, the temporary tenure of Caucasian tribes, the Kintomoey, Scythi, Yuchi, Yeta, and Sacæ, and the overlapping nations in the north-east of the centre, and in north-western Asia, is proved by their insulation or expulsion by the Mongolic, to whom the whole expanse is more genial; while, for the same reason, this last named stock could not maintain its conquests in Europe, nor to the south of the central ridge in Asia.

But the white and negro races of Africa readily intermix. The woolly-haired form has there no pretensions on the debatable land between them. The Caucasian might have assumed mastery beyond it, had not the force of nature interposed; for this race does not and cannot multiply in the centre of Negro existence; and in the warmer valleys of the intermediate spaces, such as that of the Nile, only a mixed Semitic stock possesses durability. It has been calculated, that, since the introduction of the Mameluke power, not less than five millions of well-chosen colonists, of both sexes, from higher Central Asia, have been introduced, not to wear out a life of slavery, but one of power and rule; yet no fourth generation of this stock can anywhere be shown in Egypt, even with all the additional aid of Syrian and Persian females,

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to supply the deficiency.* The force of a true Negro expansion is felt coming from the centre of Africa. It presses upon the Caffres, the Abyssinees, and the west coast of Nigritia. Morocco is already ruled by black sovereigns; and the antique semi-Caucasian tribes of the north part have greatly diminished.

As it is with individual life, so families, tribes, and nations, most likely even races, pass away. In debatable regions, their tenure is only provisional, until the typical form appears, when they are extinguished, or found to abandon all open territories not positively assigned them by nature, to make room for those to whom they are genial. This effect is itself a criterion of an abnormal origin; for a parent stock, a typical form of the present genus or species, perhaps with the sole exception of the now extinct Flatheads, is, we believe, indestructible and ineffaceable. No change of food or circumstances can sweep away the tropical woolly-haired man; no event, short of a general cataclysis, can transfer his centre of existence to another; nor can any known cause dislodge the beardless type from the primeval high north-eastern region of Asia and its icy shores. The white or bearded form, particularly that section which has little or no admixture, and is therefore quite fair, can only live, not thrive, in the two extremes of temperature. It exists in them solely as a master race, and must be maintained therein by foreign influences; and the intermediate regions, as we have seen, were in part yielded to the Mongolic on one side, and but temporarily obtained, by extermination, from the woolly-haired on the other.

SPECIES OR TYPICAL FORMS OF MAN.

WHETHER we take the three typical forms in the light of distinct species, or view them simply as varieties of one aborig-

* The same result is asserted to be observed on the banks of the Ganges; though, in the South Sea Islands and Australia, the bearded stock multiplies in itself, and with semi-Caucasian Malay races.

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inal pair, there appear immediately two others intermediate between them, possessing the modified combination of characters of two of the foregoing, sufficiently remote from both to seem deserving, likewise, the denomination of species, or at least of normal varieties, if it were not that the same difficulty obtrudes itself between every succeeding intermediate aberrance. Hence, from the time of Linnæus, who first *ventured* to place Man in the class Mammalia, systematists have selected various diagnoses for separating the different types or varieties of the human family; such as, the form of the skull, the facial angle, the character of the hair, and of the mucous membrane. But the skeleton and internal structure may not have been sufficiently examined in all conditions of existence.

It does not appear that a thorough research has yet been made in the successive cerebral appearances of the fœtus, nor of the character the brain of infants exhibits, immediately after parturition, in each of the three typical forms. M. de Serres, indeed, has led the way, and already, according to him, most important discoveries have resulted from his investigations; for, should the conditions of cerebral progress be more complete at birth in the Caucasian type, as his discoveries indicate, and be successively lower in the Mongolic and intermediate Malay and American, with the woolly-haired least developed of all, it would follow, according to the apparently general law of progression in animated nature, that both — or at least the last mentioned — would be in the conditions which show a more ancient date of existence than the other, notwithstanding that both this and the Mongolic are so constituted that the spark of mental development can be received by them through contact with the higher Caucasian innervation; thus appearing, in classified zoology, to constitute perhaps three species, originating at different epochs, or simultaneously in separate regions, while by the faculty of fusion with the last or Caucasian, imparted to them, progression up to intellectual equality would manifest essential unity, and render all alike responsible beings,

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according to the degree of their existing capabilities — for this must be the ultimate condition for which Man is created. Fanciful though these speculations may appear, they seem to confer more harmony upon the conflicting phenomena surrounding the question, than any other hypothesis that rests upon physiology, combined with geological data and known historical facts.*

* The higher order of animals, according to the investigations of M. de Serres, passes successively through the state of inferior animals, as it were *in transitu*, adopting the characteristics that are permanently imprinted on those below them in the scale of organization. Thus, the brain of Man excels that of any other animal in complexity of organization and fulness of development. But this is only attained by gradual steps. At the earliest period that it is cognizable to the senses, it appears a simple fold of nervous matter, with difficulty distinguishable into three parts, and having a little tail-like prolongation, which indicates the spinal marrow. In this state it perfectly resembles the brain of an adult fish; thus assuming, *in transitu*, the form that is permanent in fish. Shortly after, the structure becomes more complex, the parts more distinct, the spinal marrow better marked. It is now the brain of a reptile. The change continues by a singular motion. The *corpora quadrigemina*, which had hitherto appeared on the upper surface, now pass towards the lower; the former is their permanent situation in fishes and reptiles, the latter in birds and mammalia. This is another step in the scale. The complication increases; cavities or ventricles are formed, which do not exist in either fishes, reptiles, or birds. Curiously organized parts, such as the *corpora striata*, are added. It is now the brain of mammalia. Its last and final change is wanting, that which shall render it the brain of Man, in the structure of its full and human development. But although, in this progressive augmentation of organized parts, the full complement of the human brain is thus attained, the Caucasian form of Man has still other transitions to undergo, before the complete *chef d'œuvre* of nature is perfected. Thus, the human brain successively assumes the form of the Negroes, the Malays, the Americans, and the Mongolians, before it attains the Caucasian. Nay, more, the face partakes of these alterations. One of the earliest points where ossification commences is the lower jaw. This bone is therefore sooner completed than any other of the head, and acquires a predominance which it never loses in the Negro. During the soft pliant state of the bones of the skull, the oblong form which they naturally assume approaches nearly the permanent shape of the American. At birth, the flattened face and broad smooth forehead of the infant; the

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How much remains still to be done, may be further instanced in the mental faculties, which have been even more neglected; neither have they noticed religious and traditional opinions and practices; and the connection they have with the external world assuredly demands rigorous and dispassionate inquiry. In general, the leading character, somewhat arbitrarily chosen, is held up as singly sufficient and uncombined with others, — some of the most important points in the question remaining unnoticed, — and sometimes the conclusions are drawn at variance with the systematic rules prescribed in zoology on all other occasions. No common concert is the result of this variety of systems; and a great number of arbitrary divisions and causeless names are introduced, — the proof how little zoologists are agreed in their views, — while the main points are scarcely influential; and more than justifiable stress is laid on coincidences of language, which, notwithstanding they have unquestionable weight, are not as yet sufficiently discriminated for the general acquiescence of linguists, and should, moreover, be used with some regard to the occasional oblivion of a parent tongue, by the encroachment of another, brought in vogue by a conquering people.*

All, however, appear to have taken but slight notice of numerous races of the several forms of Man, which have been entirely extinguished, and to have assumed, for incontroverti-

position of the eyes, rather towards the sides of the head, and the widened space between, represent the Mongolian form, which, in the Caucasian, is not obliterated but by degrees, as the child advances to maturity.

* We refer to such as the dialects of ancient Italy, Etruscan, &c., obliterated by the Roman Latin; the Celtiberian and Turdetan, by the Latin and Spanish; the Syriac by Arabic; Celtic by the Latin and French; the Celtic of Britain by the Saxon and English; the Pelhevi and Zend by Perso-Arabic; the Mauritanian by the same; and many more. Those who wish to view the abstract forms of the classifications of Man, zoologically considered, will find an interesting article in the Edinburgh Journal of Physical Sciences, by William Macgillivray, fol. vol. i.; and in the Animal Kingdom, commenced by Linnæus Martin; two works which, it is to be regretted, were discontinued from want of public support.

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ble, that the structural differences observable in nations are solely the result of changes of climate, food, and other conditions of existence, which a careful attention to history does not confirm; and which, if they operated at all, must be a result of the long-continued action of the same causes upon the portions of mankind placed within the sphere of their operation, such as arid or moist tropical heat, arctic cold, open mountain ridges, or low swampy forests; — yet there is so little certainty that such causes do or would effect the modifications ascribed to them, that it is not even proved they influence the brute creation to any extent, except in clothing; and the three normal forms of Man, in every region which is sufficiently genial to sustain the persisting duration of one of them, feel the effect but slightly; and as *there are only three who attain this typical standard, we have in them the foundation of that number being exclusively aboriginal.*

This inference is further supported by facts, which show, if not a succession of distinct creations of human forms, at least probabilities that their different characteristics are of a remoter date than the last great cataclysis of the earth's surface; for the admitted chronological data do not give a sufficient period of duration between that event and the oldest picture sculptures of Egypt, to sanction the transition from Caucasian bearded to the Negro woolly-haired, or *vice versa*, as both appear on the monuments. In that case, the operation of the decided changes would have passed through all their main gradations in three or four centuries, without any subsequent perceptible addition in as many thousand years;* or should

* There are, besides, such facts as the perfection of style in building, in drawing, and in hieroglyphic intaglio sculpture, remarkable in the oldest monuments; not surpassed, but even receding to inferior execution, in subsequent ages. A national multitude must have risen out of few parents — all the subordinate arts invented, and so far carried to perfection, as to be available for scientific purposes, such as architecture, &c., in some cases exceeding our present capacities, or demanding the utmost ability in the moderns to equal. All this, without mentioning Etruria, Bactria, Assyria, India, and China.

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the beardless stock, which never becomes intensely black, be regarded as intermediate, the difficulty is increased; and it may be remarked, in addition, that the first admissible appearance of this type, in historical records of the west, is incomparably more recent. Cuvier, and other eminent writers, viewed the typical forms of Man to have descended from different high mountain chains of the world after the deluge, and therefore dated them at least as old as that period. But if they were in their characteristics the same before, by what force in nature did they suddenly, in a short time, change to their present distinctions, after that event? Or if they were clearly possessed of them, then the remoteness of the time renders all trustworthy decision impossible, or favors, more than it contradicts, that the tropical conformation was the most general, and the Mongolic next, because both extremes of temperature are not incompatible with its vitality; and the bearded type last, the highest, the best endowed, and destined ultimately to elevate the others by its contact; and, finally, supports the same facts in the location of species which are observed to exist in the distribution of animals and plants in particular regions, according to their nature and structure. Thus, reasoning merely from facts, the woolly-haired type again bears tokens of greater antiquity than either of the other, and it may have been of Australasian origin; not necessarily black, for color alone is of very secondary importance. Other distinctions of a specific character will be found, when those of the three forms are explicitly enumerated; and thus far their separation as species might be claimed as established, but that there remain still other considerations which should not be overlooked, since they tend to an opposite conclusion.

Among these, perhaps not one is more forcible than the fact that the lowest form of the three is the most ready to amalgamate with the highest. Again, that both the beardless and

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woolly-haired acquire the Caucasian expression of beauty from a first intermixture, and very often both stature and form exceeding either type; and, in the second generation, the eyes of Mongoles become horizontal, the face oval. The crania of the Negro stock immediately expand in their hybrid offspring, and leave more durable impressions than when the order is reversed. Even from the moment either typical stock is itself in a position to be intellectually excited by education, it is progressive in development in succeeding generations. Here, then, at the point of most intense innervation, the spark of indefinite progress is alone excited, and communicated in power, precisely according to the quantity received. For the rest, gestation, puberty, and duration of life, exclusive of accidental causes, are the same; and in topographical location, though each is possessed of a centre of vitality, yet all have races and tribes scattered in certain directions through each other, and to vast distances, at the very first dawn of historical investigation. This may be the cause why all nations acknowledge a great deluge, although they do not foresee a second; but almost as universally expect a conflagration. It is, however, true, that the obvious inference to be drawn from the foregoing remarks, does not amount to a demonstration that mankind sprung from a single pair, or is of one species only, since there are numerous proofs, notwithstanding a permanent divergence, of the three types having been constantly in sufficient contact to learn great general traditions; and the diluvian fact itself was of such magnitude, that it may have been actually witnessed by all. But then, the intention of an aboriginal unity of the species is at least so far indicated by the circumstance of Man's typical stock, having all a direct tendency to pass upwards towards the highest endowed, rather than to a lower condition, or to remain stationary.

However, these remarks appertain solely to the traditional, geographical, and historical considerations, leaving untouched the structural phenomena, which the physiologist must weigh

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and value according to their true importance, if so be, that the solution can thereby be effected, and bearing in mind how circumscribed is our knowledge of the exceptional laws of nature.

Without, therefore, coming to a peremptory conclusion in the present state of our knowledge, and having stated, so far as space and our means permitted, the principal conditions of the questions at issue, — questions which are, after all, in a great measure speculative, and whereof the result can in no shape have weight, where the moral obligations of Man regard his intercourse with fellow-men, — let us now proceed, first, to take a view of extinct abnormal races of our species; and then, after noticing generalities, offer a somewhat detailed account of the three great typical forms which constitute the human family.

ABNORMAL RACES OF MAN.

GIANTS AND DWARFS.

THERE were, in early antiquity, nations, tribes, and families, existing in nearly every part of the earth, whose origin and affinities appear so exceedingly obscure, that they have been transferred from physical realities to poetical mythology; and, under the names of Titans, Æooras, Hastikarnas, Danaras, Gins, Deeves, Thyrsen, Dwarfs, Swergi, Elves, and Fairies, regarded as personifications of phenomena in nature, although the inverse may be assumed with more probability, taking the pretended creations of mere fancy to be, in their origin, derived from physical realities more or less distorted. Such are the Giant and Dwarf races of mythology, romance, and history,

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both sacred and profane.* They occur in the traditions of most nations; and in both hemispheres their physical existence has survived to within late ages; provided, in considering the question, we reject wild impossibilities, and adopt, in their stead, the subdued impressions compatible with the sobriety of nature, reducing them to an admissible stature, and view them more by the brutal ferocity of their manners, coupled with superior physical powers, than as absolute monsters in size and energy. At a period when animal development and muscular strength alone gave preëminence, it causes no wonder that the possessors of those qualities should abuse them. They were the source of the first desires of conquest for dominion s sake. They caused nations of more lofty structure, almost all arising among the nomad shepherds of temperate latitudes, — perhaps Shetæ, Kheta, or tribes of milk-eating Scythæ,— to wander southward, and establish supremacies over weaker constituted people; first as conquerors, next as a privileged body, and last, as families, among the subjugated populations, till intermixture, or new conquerors, partially effaced the difference of nationality. Thus, the myrmidons of Achilles may have been identical with the Penestes of Thessaly, the Helots of Sparta, the Charotes of Crete, Gymnetes of Argos, and Conephores of Sicyon, which were all tribes enslaved by foreign conquerors. Thus, with scarce an exception, Giants are ever found in juxtaposition with Dwarfs, who, in reality,

* The extent of Giant legends is shown, from their having no satisfactory interpretation, except in the Scythian (Gothic) mythology; yet they are interwoven in all the earliest Greek mystical fables, without being intelligible to them. It seems as if there did exist, in Asia Minor, a particular version on this subject, for it is not a Greek mythus which has served the Jewish fabricators of their pretended Book of Enoch, where it treats of the commerce the Egregori, or fallen angels, had with women. The Giants beget Nephilim (Scandinavian Niflem,) and then Eliud (Elfen.) This is almost like the Edda, and may have been forged after the first captivity, when some Jews certainly visited Armenia. See Lactant. and Syncell.

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are the mere subjects of the other, and perhaps little inferior in stature, but certainly not so well supplied with food, and its consequent physical results. Hence, in the early ages, each party sees Giants among the leaders of the enemy, and only heroes in its own. Here, again, the rapid decline from conquering tribes to single families, sinking still to individuals in a tribe of casual birth, who on some occasions were elected to be Roman emperors and Gothic chiefs. At a later period, they pass into a kind of brutal champions, kept for the sport or for the wars of chieftains in the middle and feudal ages, or for show, as certain men are still retained in Asia. Such Giants, in remote times, were the leaders and princes of idolatrous Egypt and Canaan, Apoplieis, Og, Goliath, &c. Such the first horsemen conquerors of the Bedoueen or Ethiopian Arabs, still obscurely designated in the national lore as fair and blue-eyed, till the Almighty turned them red, and then black, in punishment for their iniquity.* And in mythological dualism, the red-haired Typhon, Baby, or Anteus, types drawn, equally with the Nephilim, from the red and fair-haired nations of Northern Asia, Gog and Magog (Haiguge and Magiuge, or the lofty and kindred lofty) Scythian tribes; the Cyclopians and Lestrigons, the Thyrsen or Tyrheni, and Raseni. Such the deified heroes of Greece and of Etruria, always represented naked, like the Baresarks and Blaumans of the north, and Gaurs and Hunen of the Celtic and Teutonic nations. Such, finally, the Goths still figured on the brazen bas-reliefs of the cathedral gates at Augsburg,† and others lately discovered during some excavations in the Tyrol. Naked championship was a custom preserved by Greeks, Gauls, Britons and Franks. So late as the year 1578, the Scottish Highlanders still fought naked against the Spaniards, at the action of Rymenant, near Mechlin.

* See Tarikh Tebry.

† These gates are certainly older than the eleventh century; the male costume renders it likely that they really belonged to the palace of Theodoric, at Ravenna, and the workmanship, that it is Byzantine.

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The Baresarks were true Giants in their manners, in their liability to fits of phrensy, paroxysms already characterized in the deeds of Hercules, and like the Malay muck. In Moslem Asia were the Chagis, naked fanatics of giant stature, in the wars of the Crusades; and there still remain Shumshurbas, Pehlwan, Kawasses, prize-fighters and wrestlers, often possessed of immense muscular strength, kept in the pay of grandees, like the ancient Blaumen of the north, or like Orson in romance;* besides these, a nation of primeval invaders of India, denominated Cattie, even now contains many warriors above six feet high, with a powerful muscular structure; and revealing the origin whence it came, by the occasional presence of light-colored hair and gray eyes.

As might be expected, physical Giants flourished longest in the colder temperate regions of our hemisphere, and are traced on the American continent, in the Mexican records, and high-nosed human forms in relief; while there exist also several tribes of American Indians, of very large stature, bearing, in general, marks of a partially distinct origin from the others, and still more from the Esquimaux. Again, in the cold extreme south, the Patagonians, likewise apparently differing from the more stunted Fuegians near them; and the Araukas or Arookas, perhaps a mutation of the Indian Azooras, compared with the now extinct Flatheads; and in both cases, fast disappearing, by reason of recent interunion with tribes of lower stature. South Africa, again, is in the possession of a lofty race of Caffres, with their champion, *Aba-lafas*, by the side of the dwarfish Bosjemans and Dokkos; and in the mountains of northern China, men above six feet in height occur. But it is doubtful, whether, in any region, they do not all, directly or indirectly, spring from the original bearded stock of High Asia; therefore conquerors, and always a master race.

* The chained giant Widolt with the gavelock, and Wade with the hammer, of the "Heldenbuch and Niebelungen" romances; and the wrestler Charles, in "As you like it," belong to this class.

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They have been often and long cannibals, the earliest possessors of horses; and hence doubly meriting the Chinese name of horse-faced; because, in addition to the first possession of the animal, all the lofty tribes of mankind have elongated features.*

THE DWARFS.

The races below a middle stature, frequently sinking to the form of Dwarfs, though seldom noticed but in conjunction with Giant tribes, are nevertheless much more numerous, more

*In the list among the giant tribes of Syria alone, we find so many, that it is evident they were mere families, ruling, most likely, by conquest, over Canaanitish tribes — Nephilim, Rephaim, Zuzim, Gibborim, Enakim, Zamzumim — some being distinguished by a malformation, having six fingers and six toes on the hands and feet; of which there is a counterpart in the legends of India. Of the stature individuals may have attained, are the examples of Teutobochus, king of the Cymbers, whose head overtopped the spears, bearing trophies, in the triumph of Marius. The Emperor Maximinus exceeded eight feet; Gabarus, an Arabian, in the time of Claudius, was nine feet nine inches high; he was shown at Rome. In the reign of Augustus, Pusio and Secondilla were ten feet three inches in height; their bodies were preserved and shown in the Sallustian Gardens. The Emperor Andronicus was ten feet high, according to Nicetas. Herodes Hereules was eight feet. Porus, six feet nine inches. Charlemagne, seven feet. George Castriot, or Skanderbeg, and George Freunsberg, nearly eight feet. Without, therefore, vouching for the exact measurements here given, we have still sufficient evidence to show, that, even in recent times, men of high stature, and of immense strength, have been historically conspicuous. The last trace, in Great Britain, of the Giant character, may be perceived in the *Broinech* of the Hebrides, where they are called *Gruagaichs*, (Gruage feachd,) a hairy bandit, concealed in the glens, and coming forth at night to plunder. During the operation of the Berlin and Milan decrees, we have personally known, in London, a Moor, usually named Gibraltar, captain of a neutral merchant ship, who was visible, at a great distance, in the Strand, head, breast and shoulders above the hats of the passing crowd, for he measured six feet seven inches and a quarter, and was, in all respects, of the finest proportions, and of very considerable acquirements in languages, &c.

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generally diffused, and bear evidence of greater antiquity, wherever they are located. In some instances supplying, by ingenuity, the want of superior strength, they appear possessed of a certain progress in civilization greater than the conquering tribes. Either from a kind of instinctive impulse, aiding natural intelligence, or from a docile spirit taking counsel, when the sense of physical inability prevails, from experience, or from instruction obtained in the Caucasian or even Mongolic stocks, to which they appear directly or indirectly related — they are miners, metallurgists, smiths, and architects. When not driven to the woods and fastnesses, they have agricultural habits and superstitions of a low polytheistical character, but bearing evidence of systematic organization. These qualities, in conjunction with retiring defensive habits, have, in every region, conferred upon them mystical properties, generally marked in legends by more excessively reducing their stature. Thence, we have Indian mythological Balakhilyas and Dwarapulas; in Western Asia, Eliud, Peri, Gin; Celtic Dubh; Northern Elfin; Dwergar, always marked with Ouralian, Finnic, and Mongolian peculiarities; passing to more poetical fairies and pigmies, and then to true Fins, Laplanders, Ostiaks, Samoyeds, Skrelings, and Myrmidons (of Achilles) afterwards named Elfin, in the woods of Thrace, and in the Hartz, Tyrolean, and Pyrenean mountains, where they are evidently the present Basques; all attesting a similar dualism of fancy and fact, as was shown to exist in the Giants. They bear, however, beside their diminished stature, one common character in physical history; namely, that all the races, where by superabundant intermixture the distinctive marks are not effaced, are swarthy, with black hair and black eyes, growing still darker in southern latitudes, till at length they become positively black, and the hair assumes a woolly character. Still, among these, some may be seen of ordinary stature, and others are stunted by habitual want of food. In this shape they are, in Asia, recorded to have existed under various

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legendary names; and they now occupy many localities, but greatly debased by persecution. Indeed, their intermediate races, and still more and more, as they pass into the purer type of the Papua or Negro, have suffered, and continue to suffer, the unmitigated oppression of Caucasian superiority. In hot regions, where a powerful vegetation supplies the means, some of the most brutal tribes, such as the Vedas of Ceylon, Cookies, and Goands of Chittagong, east of the Bramaputra, reside in trees, with little more contrivance, or the use of reason, than is evinced by Chimpanzees, the great apes of Africa. The Pouliahs of Malabar are no better, for they also form a kind of nests, in trees, beyond the reach of elephants and tigers, never associating with other nations, and not even permitted by the Hindoos to approach within one hundred yards. In open mountain country, these nations are more commonly troglodytes, dwellers in natural grottos; and only in colder regions inhabitants of caves, excavated by their own industry. Mat tents, bark and skin huts, belong to a third class; and all are, or have been, cannibals; but this appears to be a condition of existence which, at some time or other, was a habit in the highest and noblest races; for human sacrifices are always the last symptom of the expiring custom.*

To the east of the Indus we find the primeval nations of India sometimes typified, in mythological poems, by Hanuman and his monkey followers; but historically shown to designate certain human tribes, since the Ranas of Odeypoor, heads of the Sesodya tribe, noblest of the Rajpoots, claims to be descended from the monkey god, which they pretend to prove by a peculiarly elongated structure of the coccyx in their family. The claim establishes much more clearly, that the Bheels of this region, primeval inhabitants, and still the most numerous portion of the population, were the chief means of

* The Mexican sovereigns, in the time of Cortez, were still obliged, by law, to taste human flesh once in the year. The Goands do the same as a religious behest.

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conquest in the wars of Lankadwipe or Ceylon; although they had many wars with their more western conquerors. The nation is further mixed up with Brahminical mythology; for Bhil, the chief god of these foresters, slew Heri, one of the Pandoo family. Bheel likewise shot Chrishna with an arrow; and the Kabandaz of the same primeval stock are related to have captured Rama. These, with many others, extending to beyond the Brahmaputra, may be considered as the physical Nagas of Sanscrit lore; that name being still applied to the Cookies, whose inveterate cannibalism we have already mentioned; and other tribes of the same source, such as the Chong, extend to the extremity of the Malay peninsula.*

The nations of this class, mystified in the records of tradition, mythology and legends, are again prominent in Southern Asia; such as the Nagas and Nishadas, the Acephali of Greek authors, or Nimreks, Flatheads, Dombuks, Kakasiah, or Black Brethren; in Persian lore, they are the objects of constant persecution and extermination, by the earliest heroes of the first Iranian riding conqueror tribes — Husheng, Temurath Divbend, &c., who sometimes vanquish Deeves, at others subdue the black tribes of Southern Persia, among whom there appear to have been one or more, whose foreheads were naturally, or, perhaps by art, greatly depressed — a character we shall soon see which occurs again in America. Bones and crania of men, with this conformation, have been found in Yemen;† profiles of Negroes, similarly conditioned, occur in Egyptian figures, published by Gau and others; and the same frontal structure is observed in portraits referred to Caratchai (black Circassians, more probably Koords), allied to the Georgian stock, as if they

* There are tribes of Negroes in Central Africa, likewise known by the name of Nagas; and Cookies is again the name of the dark slaves of New Zealand.

† Communicated by an officer who was employed in surveying that coast.

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still bore testimony to the ancient intermixture with the black Colchians mentioned by Herodotus.

To the west of Persia, the Chna or Canaanites, and Ethiopian Arabs, before the inroads of the Giant Scythic horsemen, appear to have belonged to the same family of nations, extending northward to the Colchians before named. To this day there remains a clan of crisp-haired Arabs on the Hieromax, east of the Lake of Tiberias, with Mongolic features, by profession graziers, and, like the Hottentots, destitute of horses. To the west, in Africa, exclusive of the basis of the ancient Egyptian population, these abnormal tribes appear again to recur in the Hottentots, Bushwanas, Boshémans, and probably Dokkos, who may be the pigmies of ancient fable. Certain it is, that Hebraisms and Semitic words, in proper names, &c., are abundant, from the mouth of the Nile to the Cape of Good Hope. Thus, the Indian Parbatia, Naga tribes, as well as the African Bushwanas, have all indications of a remote intermixture with the Mongolic races; and this character is retained in the earlier forms of their idols, always represented with crisped hair, oblique eyes, and ears detached from the side of the head; and it may, perhaps, be traced in another direction, among the swarthy Kirguise.

THE ATURIAN PALTAS OR FLATHEADS OF SOUTH AMERICA.

Of all abnormal nations, the most singular were those Flatheads of South America, whose bones and skulls now remaining furnish the only proof that a people with such strange conformation of the cranium have positively existed, and if we could now ascertain to what extent they likewise differed from the other typical forms of man, in the physiological conditions of structure of the softer parts; such, for example, as the peculiar epidermis which Monsieur Flourens ascribes to the whole red race of America; a quality which they, as the most normal of

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them, may have possessed to a still greater extent; the question would assume a paramount interest — one, perhaps, more indicative of a distinct origin than any before noticed.

Dr. Tschudi, describing this form, in his paper on the ancient Peruvians, remarks on the flattened occiput of the cranium, and observes, "that there is found, in children, a bone between the two parietals, below the lambdoidal suture, separating the latter from the inferior margin of the squamous part of the afterhead; this bone is of a triangular shape, the upper angle between the ossa parietalia, and its horizontal diameter being twice that of the vertical. This bone coalesces at very different periods with the occipital bones, sometimes not till after six or seven years. In one child of the last mentioned age, having a very flat occiput, the line of separation was marked by a most perfect suture from the squamous part, and was four inches in breadth by two in height." In remembrance of the nation where this conformation is alone found, the learned doctor denominated this bone *Os. Incæ;* and he further remarks, that it corresponds to the *Os. interparietalis* of Rodentia and Marsupiata.

These characters had been previously noticed by Mr. Franklin Bellamy, in a paper read by him to the Naturalist's Society of Devon and Cornwall, together with remarks which do not occur in Dr. Tschudi's communication, and are, nevertheless, of considerable importance. Comparing the cranium of two Titicaca children with skulls of Europeans of similar age, he found the frontal bone, the parietal and occipital bones, of the former, all considerably larger than the latter, elongating the head posteriorly, and throwing back the whole skull. This peculiarity was greatest in the cranium of an infant, not many days old, and lessening with growth in the older head; therefore it was not absolutely the result of bandages; because the natural effect of these would tend more to increase than to decrease this result. From the small flattened forehead there could not be much space for the anterior lobes of the brain. The orbits were exceeding strong, with a somewhat elevated

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ridge, and the bones of the face harder and more solid than those which were produced for comparison. Dr. Lund likewise observed the incisor or molar teeth of adults to be worn to flat crowns — a character which occurs also in some ancient Egyptian jaws, and in heads of Guanche mummies.

Here, again, we have characters so marked and decisive, that if the case were applied to a lower animal, systematists would not hesitate to place it as a separate species; and the comments of physiologists who refuse their assent, not being in harmony with the admitted definitions, are more specious than convincing. It appears that the nation to which this form of head was peculiar, although with all the signs of very low intellectual faculties, had nevertheless made advances in civilization, which several of the Asiatic abnormal tribes have never even attempted to acquire. They built houses of large stones, in a pyramidal form, having an upper floor; and, judging from certain remains of their implements, and the contents of their graves, they were peaceable beings, most likely under the control of superiors not of the same stock, even from periods anterior to the formation of the Inca system of civilization. Mr. Pentland, we believe, first brought this singular race into notice, from skulls dug up near the shores of Lake Titicaca. Dr. Lund found others, even in a fossilized state, in the interior of Brazil. They were discovered in limestone crevices, in company with bones of different species of extinct animals; proving both the remote age when this form of man already existed in America, and the extent of surface it is now known to have occupied. As the Budha, and several other idols of India, constantly represent Man with profiles taken from a very low type; so, in America, the Flathead form appears to have had a commanding influence in the ideal divine of the human head; for the depression of forehead and occiput is found artificially reproduced by many tribes in both the southern and northern continents; and specimens of these are observed among human remains, buried in the high sea sands of Peru itself; but these last mentioned have, in general,

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the occiput flattened obliquely, with but little apparent artificial anterior depression, evidently the effect of the back of the head having been secured to a board during infancy, as is still a practice in the north. The same form of the head is likewise observed in the high-nosed bas-reliefs of gods and heroes, both sculptured and tooled in the ancient temples and buildings of Yucatan and southern Mexico; the representations of a people now likewise extinct, and by the indigenous tribes referred to the Giants of their primeval ages. The account is not without some probability, since the profiles belong to a race entirely distinct from the general population of the western hemisphere, and is only conformable to the high-statured races of Asia; excepting some tribes of North America, who, by their traditions, came from the north-west, are still of a lofty growth, and bear the aquiline features which may prove their descent from a kindred race. Several of these, like the Osages, not uncommonly reaching the height of six feet eight inches; but since the great disturbance of location, produced by the European influx, they have latterly intermingled with other tribes, and are now fast effacing their particular characteristics. Perhaps the Yucatan Giant master-race disappeared, when the Aztecs prevailed in Anahuac, from causes of a similar nature. Upon the whole, the nations with depressed foreheads, when under the guidance, perhaps, of Gomerian masters, seem to have a community of other characters, such as constructiveness, which distinguish the Paltas of South America, as well as the older Egyptians.

REMAINS OF OTHER ABNORMAL TRIBES.

From the occasional destruction of whole tribes and races, which is sometimes caused, even in modern ages, by the sword, by contagious diseases, or by new modes of life, and the introduction of vices before unknown, it is evident, that numerous populations of the human family have disappeared, without

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leaving a record of their ancient existence. We may instance savages in the British Islands, who had flint knives, a kind of earthen pottery, and dwelt in caves. They were contemporaneous with hyænas and lost species, for their bones are found in the same deposits; consequently, they are older than the Cynetæ, who preceded the other Celtic colonies in this island.

Continental Europe affords instances of several more, whose history is a blank, although there remain scattered families, with peculiar marks of distinction, in evidence of the anterior existence of communities of the same kind. Some, still extant, seem to have been objects of slander and persecution, under several successive social systems, denied the rights of common humanity, without a comprehensible cause, and even in defiance of the kindness which Christian pastors evinced for them. Others are still said to be untractable, notwithstanding the government endeavors to make them adopt the manners and duties of civilized life. The caves, with human bones, in Quercy, already mentioned, belong to this class. Such are the Cagots of the south-east of France, by some asserted to derive their name from the contraction of Can-goth, because they are a residue of the Goths, who, being anciently Arians, were held in detestation by their neighbors; they were stigmatized as lepers, and refused entrance into church by the common doors, &c. This people, either an ancient residue, or latterly forced to a vagrant life, extended, under many different names, to Guienne, Bearn, Bretagne, and la Rochelle, being sometimes confounded with Gypsies, although they were known before the arrival of the latter, and even enjoined not to appear abroad without the mark of a goat's foot sewed upon the outer garment. King Louis XVI. first ameliorated their condition, and the French revolution finally swept away all the remaining legal disabilities.*

In the forests of ancient Dauphiny, there exist also relics of

* There are recent accounts of this people, written by Baron Ramon, as well as ancient notices by Ochenartus, "Vasconiæ notitia." Bel Forest and Paul Merula.

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another population, unrecorded in history, but commonly ascribed to a Saracen or Moorish origin, stragglers of those who invaded France in the seventh and eighth century, and were unable to escape. There were Caucones in the Peloponnesus, Conconi (drinkers of horse blood), and Cheretani, in the Eastern Pyrenees; but they and the Almogavaries have been absorbed.

The Chuvash, still found scattered in the provinces of Kasan, Sembirsk, and Orenburg, in Russia, are a still more obscure race of men. They seem to be the remnant of a semi-brute population, which was scattered on the arrival of the more intellectual Caucasians. In mental capacity, the Chuvashes are reported to be inferior even to the Ostiaks and Samoyedes. They live without taking the slightest notice of the world around them, in a condition little elevated above the orang-outang. While increase and activity is everywhere witnessed in their vicinity, they alone remain stationary; industry and civilization excite in them no desires, no wish to be partakers of prosperity; none ever show inclinations to barter, or to be stimulated by gain to increase the means of comfort or of personal happiness, still less to learn any trade. Their countenances are stupid, their habits incurably lazy, and their religion, for they have a worship, the most degrading idolatry. Their language is barbarously imperfect, and their manners and customs are still more revolting. The Assassins, Ansarie, Batenians, Dozzim, Laks, and Yezeedis of South-Western Asia, still persecuted, but not wholly exterminated, are tribes of primeval origin, variously mixed.

The Gypsies, Zingari, Sinde, may be of the same stock as the Tschinganes at the mouth of the Indus, who are themselves a tribe of mixed oriental Negroes and Caucasians, and are likewise connected with the Gungas or Indian Gypsies and Laubes of Africa, who may all be instanced as examples of the development of human beauty, whenever the typical races are crossed; for, while this result is impressed on the whole of

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the Asiatic stems, the Laubes, dwelling in the Jaloff country, in western Africa, though of the Zingara race, are remarkably ugly and diminutive, probably because they are unmixed even with the Negro tribes around them. In one characteristic they all unite, namely, to be, by predilection, wanderers without a home; not graziers nor cattle-dealers, but tinkers and pilferers. Another outcast race, in Central Africa, are the Cumbrie Blacks, whose origin is still less known. Though they are considered to be genuine Negroes, they are not permitted to have a national existence, but are treated as slaves by all the other tribes in Yaouri and Engarski. This fact is sufficient to prove them of a distinct origin, and their present character to be superinduced by the lust and lawlessness of conquest and oppression.

The Guanches, perhaps identical with the ancient inhabitants of Fernando Po, both sallow nations; the first latterly, the second not yet extinct, appear on the skirts of Africa, as remnants of a race of tenants of the soil, before the expansion of the Negroes.

The cannibal Ompizee of Madagascar, or copper-colored savages, who fed upon each other till they are nearly or perhaps now entirely destroyed, may have belonged to the same stock, for they have no national affinities with any other people of the island. We may mention here the Benderwars, a Joand tribe on the Nerbudda, who devour their aged and sick in honor of Kali; the Ogres or Gholes of Rajahstan, known by the name of Rakshassas, Pisachas, or Bhutas, Aghori, Mardikohrs, &c., feeders on human carrion, whose habits are already mentioned by Ctesias, and are still not entirely extinct. Other tribes there are, equally aberrant, almost as degraded in mind and form, but caused by the wretched conditions of their existence, or by an apathy of character, which no force of example or change of circumstances seems to affect; such are the Samang Dwarfs of the Malayan mountains, and the black Inagta of the island of Lasso, whose stature seldom exceeds four feet eight

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inches. It will be an interesting object of consideration for anatomists, who may be placed in favorable conditions for observation, to examine the brain of children belonging to these races in the fœtus, and particularly after birth, as it may be expected to display a still more imperfect state than that of a Negro infant.

The foregoing discussions have chiefly had for object, to offer some points relating to the physical history of man, which, it appears, have not as yet been viewed in the light here shown; perhaps, because the facts relating to them are uninteresting and few, or are concealed under a dense veil of tradition and figurative mystification, with only occasional glimpses that can be appreciated, and therefore difficult to grasp, and uncertain in the application; still, when collected into somewhat of a series, give consistency to conjecture, and frequently bestow upon it most, if not all, the conditions of historical truth. As we proceed, names of nations and tribes above indicated among the unassignable in the family cognations of man, may again appear with more detail, clothed in the form they seem to have passed into, and become known and well-defined races.

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THE TYPICAL STOCKS.

COMPARISON OF PHYSICAL POWERS, AND STRUCTURAL DIFFERENCES OF THE TYPICAL STOCKS.

Let us now proceed to review the structural characteristics of man, in their general application to the distinction of species, varieties, or stocks. Among these, Camper's observations on the facial angle which distinguishes the three typical races, taken in a general view, are most important. The human head, seen vertically, or from above, conceals, in the Caucasian form, nearly every part of the facial surface; whilst the same view of the woolly-haired type demonstrates the narrowness and obliquity of the forehead, by exposing the greater part of the face. A smaller obliquity may be observed in the cranium of the Mongolic stock, but differing from both the preceding by the lateral expansion of the cheek-bones. Hence the facial angles, taken by drawing a line from the opening of the ear to the nostril, bisected by another line dropped from the prominent part of the forehead to the most advanced edge of the upper jaw, taken on the profile view of the head, produce an angle, which, according to the number of degrees it is found to open in Camper's hypothesis, advances the forehead towards a vertical structure, gives prominence to the anterior lobes of the brain, and consequently develops intellectual capacity. But this criterion, though generally true in all mammalia, if the question be referred to man, is liable to the objection, that whole races have the orbital crests, at their junction on the lower edge of the frontal, so prominent as to prevent the facial lines touching the forehead, which from that point falls suddenly, both in the natural structure of the flat-headed nations of Asia, and in the heads by nature or artificially depressed, such as occur in America. In other respects, where the facial line can be drawn fairly, there is no doubt of the general cor-

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rectness of the principle, provided a vertical view upon the skull, according to Blumenbach, and another upon its base — the lower jaw being removed as recommended by Professor Owen — be likewise employed to form a comparison. The highest intellectual bearded nations present, by the Camperian method, individuals rising to eighty-five and even nearly to ninety degrees. These are, for example, occasionally observed in the Teuto-Sarmatian nobles, and, more rarely, in other European nations;* but beyond the perpendicular line of forehead, there occur only indications of morbid development, and ideal exaggerated profiles of Greek divinities, whose overhanging brows, and deep-seated eyes, produce the effect of a calm shadowy frown, which we learn to view as an attribute of majesty and conscious power. Much, however, and indeed the essential, in all mental constitution, must depend upon the proportions of the cerebral structure being in sufficient harmony for their rational operation; and this condition is found preserved, without material injury to ratiocination, where both the anterior and posterior portions of the brain are distorted by artificial pressure in infancy, or where the volume is small, by the retreating low angle of the forehead; whether or not the case applies to a whole race, or to an occasional individual among the bearded tribes.

It appears that individual interunions between the typical races not only tend to the superior development of form and

* In a series of portraits, representing Polish, East Prussian, Silesian, Bohemian, and Moravian nobles, they occur frequently. The late Count Harach, from our personal knowledge, was remarkable for this feature; i. e., a lofty and broad, very nearly vertical forehead; and it must be added, that many so distinguished, were conspicuous as statesmen and warriors, probably all as ambitious men. It were to be wished that portrait painters paid more minute attention to this object — we mean, placing the aperture of the ear in relation to the nostril. It is important to them for the sake of truth, and to the physiologist for the same reason; since, without accuracy, he cannot draw fair conclusions from painted human likenesses.

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capacity in the offspring, but that the same tendency continues to operate between different tribes; the constant crossing of Celtic with Teutonic blood, upon a Perso-Arabian basis, being perhaps a principal cause of the early progressive civilization of Southern and Western Europe; and the stationary character, chiefly observed in the Mongolic race, being a result of the want of the same acting cause. Notwithstanding the desire of the beardless type to violate its own prohibitory laws, intermarriage with Caucasian women is decidedly more sterile than the union of the bearded and woolly-haired sexes. Where human laws prevent intermarriage, nature endeavors to be avenged through the more powerful operation of the passions, by means of interunion with foreign slaves, by abduction, and by child-stealing; whence results a certain restoration of the balance. There are localities in Europe, where the frequent intermarriages of the same families produce constantly individuals defective in constitution, mind, or limbs.

Without intermixture of races, the ratiocination of mankind appears inoperative to certain particulars in life. Nomad nations may not wander with their cattle solely from inclination. Necessity is the first cause. But there are tribes, such as we have already named, who are not to be taught by example, or by the advantageous results of undertaking certain things that their inclinations reject. The Jews probably never were a truly agricultural people, working with their own hands. The Veneti, Heneti, Gwyniad, or Ventæ, were always the real commercial pedlers of antiquity. The Armenians are nationally merchants, from London to Bokhara. Neither were ever warriors; they traded solely; and the last mentioned continued to act on the same principle. They lived under the shield of the strongest warlike people that would protect them; the first, under Etruscans, Gauls, and Romans, till the fall of the Western Empire; and the second, under still existing governments. Some nations decline the use of horses; others abhor the plough or a sea life. The Gypsies are always

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tinkers. These predilections must therefore depend on modifications of the brain.

That the volume of brain is in relation to the intellectual faculties, is clearly proved by Dr. Morton's researches, who, having filled, for this purpose, the cerebral chamber of skulls belonging to numerous specimens of the Caucasian, Mongolian, Malay, American, and Ethiopian (Negro) stock, with seeds of white pepper, found the first the most capacious, and the Ethiopian the smallest; though there may be some doubt whether the Negro crania that served for his experiment, were not, in part at least, derived from slaves of the Southern States of North America, who, being descended from mixed African tribes, and much more educated, have larger heads than new Negroes from the coast. We have personally witnessed the issue of military chacos (caps) to the 2d West India Regiment, at the time when all the rank and file were bought out of slave ships, and the sergeants alone being in part white, men of color, Negroes from North America, or born Creoles, and it was observed, that scarcely any fitted the heads of the privates excepting the two smallest sizes; in many cases robust men, of the standard height, required padding an inch and a half in thickness, to fit their caps; while those of the non-commissioned officers were adjusted without any additional aid. Though, on one hand, it is here stated that the Negroes from the coast of Africa were, in all probability, still less favored than the measurements of Dr. Morton proved; it is, on the other, equally true, that the progress of development, and the elevation of the forehead, in the mixed offspring between the woolly-haired and white races, is often effaced in a second generation. It is so always much sooner than the apparently insignificant characters of the color of the skin, and the crispness of the hair, which are never totally obliterated till after the fourth generation, when the African character may be deemed absorbed. It is advanced as established, that an accidental effect in the external characters of an individual may become

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permanent in a race. But accidental appearances must have a cause, and terminate when that cause disappears. Men covered with hair, or with a horny skin, may reproduce this character in their offspring; but then it is exceptional and disappears in the next generation. Albinism is more evident, and therefore believed to be more frequent in the woolly-haired races of man; but in the sandy plains of the north-west of Europe, the same appearances occur, though not quite with the marks of disease; it is mere absence of coloring matter in the system. Among Mongolic nations it is unknown, or very rare, and it is equally so with the aboriginal tribes of America.

The stature of mankind is unquestionably influenced by the adequate supply of wholesome food; and hence the civilized nations of moderate climates are more generally of an equal standard than barbarians and savages, among which the hunter and pastoral nomad tribes arrive at the greatest stature. But, in these cases, a Caucasian element may be expected to be present, whether we take the Miao-tze of China, the Caffres of Eastern Africa, the Patagonian Araucas of South America, or the Creeks and other tribes in the north. For, if some latent cause of this kind did not produce the difference, all other tribes in the same climate, and under similar conditions of food and mode of life, would acquire a similar height; yet this is not the case; and it is even known, in both the Americas, that the union of two tribes, differing in this respect, has produced, in one generation, the disappearance of a superior growth. Ancient history likewise represents the northern Gauls (Belgæ), and the Teutonic nations, as far superior in stature to the civilized Romans, though they do not appear in their barbarous habits to have been better fed than the tall tribes of North America. In gracefulness of proportion, the American mixed white races with Negroes, both of French and British, and still more, of Spanish origin, yield to none in any part of the world; and it is a mistaken notion to believe in the assertion that the standard contour of beauty

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and form differs materially in any country. Fashion may have the influence of setting up certain deformities for perfections, both at Pekin and at Paris, but they are invariably apologies which national pride offers for its own defects. The youthful beauty of Canton would be handsome in London; and the Tahtar nations, in the days of their conquering career, married the daughters of semi-Caucasian nomad princes, or notoriously selected, for their chiefs, the same class of European or Caucasian forms as they still purchase from Circassia and Persia, Affghanistan, Cashmere, and India.* Luddee, the young wife of Abba Thule, chief of the Pelew Islands, was handsome on the Caucasian model; so are all the beauties of Malay or other blood in the South Sea Islands; the most admired young females among the Arookas and the Caribs. The Chippeways likewise have many beauties; and so was Harriet, the belle of Lorette Sauvage, a Huron village near Quebec. In all these cases, both Europeans and natives agreed.

Human growth, according to Professor Quetelet, is not completed until the twenty-fifth year, at least in Belgium; but this period is supposed to be shorter in other countries; certainly so within the tropics, and in very warm regions, where development and decay are universally allowed to be more rapid.

Weight is another element in the consideration of races, as this quality materially influences physical strength, and consequently bestows confidence, enterprise and success. An instrument, the dynamometer, has been invented to measure the relative scale, and they have shown savage nations to be

* It is from these sources that the energetic innervation was principally derived, which gave birth to the great Toorkee Mongole conquerors, both in the west and in China. Such, for example, was Alancona, wife of Bissouka Bahander, of the Niron Toorkee tribe of smiths; Purtan Cargine, daughter of Conjorat Khan, the ambitious wife of Genghis, and Toorakina Catan, wife of Octai.

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strong in proportion to the abundance and wholesomeness of the food they possess; but in all cases hitherto examined, civilized Europeans surpassed them;* and, it appears, English exceeded French; or perhaps more correctly, the Teutonic stock surpassed the Celtic, both in strength and weight, although the Irish Celts are said to be taller and heavier than the English Saxons. As yet, no great stress can be laid on results obtained from an imperfect instrument, partial inquiries, and questionable nationalities; still, enough is determined to reject an opinion, often prevalent, that the moderns are degenerate when compared with their ancestors. The conclusion is further controverted, by an experiment made at Goodrich Court, where the splendid collection of ancient armor is classified, with rigorous attention, both to date and nation, by Sir Samuel R. Meyrick, the enlightened and munificent possessor. Two gentlemen, one of middle stature, with ample chest and shoulders, and the other somewhat taller, but of more slender structure, endeavored to find armor sufficiently large to fit either one or the other, and failed, in a collection where, we believe, they had a choice of upwards of sixty complete suits of plate, all defensive armor, which nevertheless had been worn, in preceding centuries, by chivalry, and persons of distinction, in England, France, Germany, and Italy. Hence King John, Petit Jean de Saintré, the Constable of Bourbon, the Prince of Condé, ("ce petit homme tant joli,") and Nicolo Piccinino, were not the only valiant men of small proportions in the feudal ages. At the present period, the British upper classes are probably of higher stature than the aristocracy of any other civilized people;† but taken nationally, the Prussian

* The strongest North American Indians are asserted to fail against the ordinary power of wrist of Europeans; that is, when each side place the right elbow to elbow, and cross the fingers through each other's hand, striving to bend the opposing wrist back. The fact was established by the 60th Regiment in Canada.

† Mr. Laurence, in his work on the Natural History of Man, may have

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and all the fair-haired natives of the north-west of Europe, are of greatest height, since the standard size for the military service is above that of any other people in Europe. Northern Chinese, or Highland Tahtars, we have been informed by a general officer who served in the late war, were found to be fully equal, in stature and bulk, to our stoutest grenadiers; but we have since learned, from another officer, that when these men appeared on the field, they were found to be Miao-tze, — that is, a people of Caucasian or Caucaso-Malay origin.

Elasticity of frame is, however, a quality very distinct from weight and strength. The Caucasian of Europe is trained to harder manual work than other races; but it may be doubted whether he could ride continuously, like the Turkish Tahtar messengers, or Persian Chuppers; or whether he could sustain the fatigue of such unceasing marches as the aboriginal American warriors perform, or run on foot with the speed of Bechuana Hottentots, or even compete with New Hollanders, the most slender-limbed race on earth. When, therefore, comparative trials of strength are made with other nations, the selection of the modes should not be more than one half in favor of those which Europeans are most inured to. Captain Cook found his seamen unequal to a boxing contest with Hapaceans. There have been Negroes able to dispute the sparring championship of the English fancy ring; and beside the porters of Constantinople and Smyrna, celebrated for prodigious strength of loins, there are Pehlwans, professed wrestlers, in middle Asia, whose physical powers are certainly equal to any Europe can produce. It is not by comparing French or British seamen, as Peron did, with natives of Van Diemen's Land, New Hollanders, or Timorians of torrid regions, — all notoriously of small bone and light weight, — that a true estimate can be obtained of the

easily found Englishmen of six feet and more in height, and Negroes below that standard; but had he visited tropical market-places, and compared the stature of our planters and sailors by that of the Negroes, he would most likely have found the white men the smallest.

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relative strength of savages. The experiment should be tried, likewise, with Caffres, Patagonians, Araucanos, and Osages, notwithstanding these nations train their powers more to active exertions of body than to heavy manual toil; for if the trial were made with women, it may be expected that, in most cases, Europeans would be inferior to savages, excepting those who are particularly destitute of food; or if it were made between populations of the bearded race, such, for example, as French Canadian boatmen and English laborers, there is no doubt that the last mentioned would as greatly surpass the first, in the toil of agricultural labor, as they would be outdone by them in the lasting exertions of poling, — that is, pushing boats up the current of rapid streams by the help of poles.

INTELLECTUAL AND MORAL CHARACTERS OF THE TYPICAL STOCKS.

Confining the number to three, because they alone are possessed of the extremes of difference in structure and color, and because they have received, as before stated, centres of existence where the others cannot predominate, we shall find proceeding from them sub-typical stems, always interposed at the geographical points of contact between the two nearest types and, further on, third and fourth branches, or races and nations, consisting of more divergent forms, which have combined the characters of all the three in greater or less proportions;* while over the whole are spread adventitious distinctions, sprung from changes of climate, latitude, food, mode of life, and the

* The ancients, in several of the trinal combinations which play in their doctrines, seem to have an allusion, perhaps unwittingly, so far as the Greeks were concerned, to the three typical stocks, in the evocation of Hecate, (a Scythian divinity); for the ceremony demanded a waxen triform image, whereof one was to be white, the second red, and the third black. These indications are significant on a spot such as Tauris, notwithstanding the usual explanation, which refers them to the triune doctrines of India.

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innumerable other influential conditions of existence, — conditions that affect, though in a less degree, the typical structure, the external appearance of Man, and that acquire a deep-seated power over his intellectual faculties, in their possible development, and, consequently, also in their contraction, externally observable. Therefore, in reasoning upon them, we must be guarded against certain prepossessions of self-esteem, which the educated man of the bearded stock, and, indeed, mankind in general, is apt to entertain of strangers; for the same tendency is ever at work between nation and nation, and between every sub-division of the human family, however formed. In the description of characters, scientifically taken, we can only point out what they are, without having the power of stating what may be eventually evolved; and though already assured, even with the apparently most degraded nations, that moral rectitude is fully understood, nay, often put in practice, by the savage, to the disgrace of the rapacious Christian who visits his abode; not ashamed to use knowledge for the purpose of deception and illusions for his own gain, though the consequences carry destruction to his victims. When bearing in mind what our own remote progenitors were, we must allow that all men, and all races, bear within them the elements of a measured perfectibility, probably as high as the Caucasian; and it would be revolting to believe that the less gifted tribes were predestined to perish beneath the conquering and all-absorbing covetousness of European civilization, without an enormous load of responsibility resting on the perpetrators. Yet their fate appears to be sealed in many quarters, and seems, by a preördained law, to be an effect of more mysterious import than human reason can grasp.*

* There is, however, a great distinction to be drawn between conquest that brings amelioration with it to the masses of the vanquished, and extermination, which leaves no remnant of a broken people. It seems the first condition is only awardable to the great typical stocks, effecting incorporations among themselves; the second almost invariably the lot of the intermediate, which, in most favorable cases only, are absorbed.

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As, therefore, we cannot attain, in our state of knowledge, satisfactory conclusions on this head, it becomes the duty of all to assert, at least, the rights of humanity, in their indisputable plenitude, although to us, in particular, as mere naturalists, it is a bounden duty to confine ourselves to known historical and scientific facts.

PRIMÆVAL LOCATION OF MAN, OR POSITION OF THE TYPICAL STOCKS.

As the more detailed characters of the typical stocks, their real or primæval location, and the diffusion of subsequent races, cannot be readily understood without some retrospect of the geographical conditions of the earth, not only with regard to the convulsions already mentioned, but likewise as they bear upon the position of the great chains of mountains, seas, and deserts, and the direction of leading rivers, it is important not to overlook them, wherever the influence they must have exercised in the question under review is clearly ascertainable.

Mankind, when first it becomes historically known, is already diffused over the greater part of the eastern hemisphere, and, probably, far beyond it, even to the western; yet it appears to have departed from the vicinity of a common centre, or, at least, to have primævally formed several stocks, clustered in the vicinity of that high central region of Asia which comprises the external rampart, and, perhaps, interior of the vales of Thibet, and the so-called Khangai* of the Gobi desert; for this was, approximately, either the seat of Man's first development, so far as it can be now traced, or the space where a portion of human beings found safety, when convulsions and changes of surface, which may have swept away a more ancient zoology, had passed over the earth, and were introductory to a new order of things.

* Khangai, or oases, verdant river courses, and lakes, which occur in several places.

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The Gobi or Shamoo region is a true Shinar or Djeen, a series of sandy deserts, intersected, at great distances, by mountain ridges, and not unfrequently by rivers ending in lakes, which all naturally tend to separate small populations, and to keep them isolated so long as numbers do not compel the inmates to seek for more abundant subsistence. This state of being urges Man equally to a shepherd's life and to a beginning of agricultural industry. Around this space can be traced several high mountain systems, bearing the names of God, of Heaven, and of Snow (purity); for these are often expressed by the same words, such as Himaleh, Thianchan, Bog, &c., and mythical traditions, without geographical localities, where Pagan nations, at various times, centred the habitations of their gods, or progenitors, in spaces of eternal snow, such as Mount Meru, Kaf, or the oldest Olympus, find here in Bogtag, Himavali, and the peak of Himavahn, real geographical positions. It is there we find the Chumutaru peak of snow; and Somero purbut, created by Mahadeo, for his retreat and throne, when, like another Jupiter, he fled from Ravan; the Hindoo diluvian Titan is clearly the snowy group at the sources of the Ganges. In this high region are the local sites commemorative of traditions more than once repeated, at successive more distant stages, in proportion as the earliest nations moved further from their original common centre, or mythical tales spread onwards with time. There is Naubundana, — perhaps Dhawalaghiri, — where the patriarch god himself, in the form of Kapila, conducted the ark, and secured it to the rock, according to Hindoo lore; and, on the north, where the Tahtar legend places Nataghi, the boatman god of the mountain, with his family, in one of the peaks of Altai; for it is not a fact which always marks a pagan source, as has been remarked, when Man's existence is made to commence after the diluvian cataclysis. There is constantly a record of antecedent existence, though not a history, among early nations. It is variously told, but

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not the less the same in substance, in both hemispheres, and in the South Sea Islands.

Although, in Central Asia, no very distinct evidence of a general diluvian action, so late as to involve the fate of many nations, can be detected, still there cannot be a doubt that, with scarce an opposable circumstance, all Man's historical dogmatic knowledge and traditionary records, all his acquirements, inventions, and domestic possessions, point to that locality, as connected with a great cataclysis, and as the scene where human development took its first most evident distribution.

The animals subdued for household purposes, by the earliest nations, are found upon or around it in all directions, — like the Dog, universally spread where Man resides; and the Hog, found radiating from points, where the wild species occur, from south-east to north-west; the Horse, Ass, and Camel, in directions originally commencing from the west side; so, again, the Ox, Sheep, and Goat, still existing wild in the form of more than one species on the same borders; whilst even the Elephant walked once through the more southern woods; and the Wild Cat, similar to the European, now haunts the same, and prowls far onwards in the north. Of birds, Gallinacea, all originating in the south-east of Asia; several kinds of poultry are wild in the woods; and one domesticated species, at least, was carried, in Man's earliest migrations, onward to Egypt and the west of Europe, as well as to the furthest islands in the South Seas; perhaps even to Chili, before the arrival of the Spaniards.

On the western side, at least, are found the parent plants of many fruit-bearing trees and shrubs, now naturalized in Europe; the walnut, chestnut, filbert; the apple, medlar, cherry, and almost all the wild and cultivated berries, and the vine at no great distance.* Wheat and barley, of more than one variety

* The vine is now cultivated about Llassa, in Thibet, 29° 40′ north latitude, and may also be indigenous.

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or species, occur on the skirts of the same central region, some thriving at more than 10,000 feet of elevation in the Himalayas and in China, with buckwheat and oats on the plains of the north-west, and onions, turnips, &c., growing wild in many places; wild flax and hemp on the northern plains; and, in Cashmere, the valleys even possess edible gourds, pumpkins, and melons, whereof one or two species flourish in the arid deserts; even the lotus, celebrated in Egypt, was derived from some part of India.

It would be vain to look for so many primitive elements of human subsistence, in a social state, in any other portion of the globe. Nearly all of them were originally wanting in the western Caucasus, and the civilized development of Egypt could not have occurred without the possession of wheat, barley, flax, the leek, garlic, onion, and many other objects, all foreign to Africa.* These can have been brought westward only by colonies practically acquainted with their value. In the devious course of the nations moving westward, the mulberry, apricot, and the date palm, may have proved an early resource to the traveller; and, further on, the olive, fig-tree, and plum, were, no doubt, luxuries; but the sorbus, and, more certainly, the citron, were a later importation from beyond the Indus, as well as the orange, which came from China last of all. Rice was, most probably, a substitute for corn, first perhaps cultivated in China, or Indo-China, where the requisite heat and watery soil naturally present themselves.†

On the west side of Thibet is the huge table land of Pamere,

* Triticum sativum; Triticum spelta, still wild near Hamadan; Hordeum vulgare, in Northern India and Tahtary; Allium cepa, &c., wild in various places.

† In Egytian representations of tribute, brought by subjugated nations from "far countries," it is pleasant to remark, among many objects, living plants and shrubs, carefully transported for replanting, and, by those accompanying them, are evidently from an eastern region. These figures likewise bear the Swasteca, or a similar cross, indicative of a symbolical creed.

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the back-bone of the world, not yet distinctly marked in maps; a more real umbilicus of the earth than any other of the sacred centres of primæval society. Here is the mysterious Lake Surikol, at the source of the Oxus, where local belief pretends that the Jaxartes and the Indus have both affluents rising at no great distance, while the Kash-gar, on the east of the summits, flows towards the rising sun. To the west are the mountains of Northern Hindoo-Koosh, the probable seat of the first Celto-Scythæ, for in these regions was afterwards established a Macedonian empire, which, without an original consanguinity with the local nations, could not have lasted even for one generation.

Most primæval nations have traditions of a primordial city of the gods, of the progenitor heroes of each stem, — a Babel, Nagara, Pasagardæ, or Asgard. It appears that Balkh (Khambalu*), is, at least, the most prominent, so far as the western and southern nations are concerned, notwithstanding that the present Bamean, with the interminable troglodyte habitations around, may well represent the spot where increased population, finding insufficient food, would be excited to discord; and an appeal to force would naturally end in the weaker party being driven to exile or dispersion.

Though other traditions may be more purely Caucasian, mention may be made of some, perhaps, no less important. Among these is the very ancient name of Neel-ab, Blue River, given to the Indus by the earliest Semitic tribes in the east, and similarly applied to the Nile of Egypt, causing that confusion in geographical ideas which believed the river of Africa to come, by some unknown way, from the east, until the expedition of Alexander cleared up the error. It is curious that the Sutledge of the Punjab is still the Blue River; pointing to Cashmere (Kaspapyrus) as the first seat of the Perso-Arabian races.

* The first Cambalu, or rather Khan-balk, is not Pekin. Samarcand, the first horse-fair, and thence commercial city, is at no great distance.

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The oldest form of social existence was parental, or by families, which soon expanded into the patriarchal, still retained by nomad pastoral nations. With others it broke up by the separation of the priestly dignity from the head paternity of tribes. As soon as dogmas and political considerations multiplied, the struggle between authority by birth, and the suggestions of expediency, began; for ambition pleaded the claims of valor, justifying them by surrounding dangers and the inefficiency of nonage; the pontificate demanded an undying adequacy of purpose, upheld by sanctity of example: arguments which, being repeated as the social existence spread wider, hierarchies were instituted, and the rights of pleading the cause of justice, or the art of healing the sick, became separated, or classified into learned orders.

In religious feeling, a deism, perhaps a form of Budhism, can be traced back to Central Asia as early as the reign of Sesostris. The Vedas, not much, if at all later, show the possession of a higher truth than the subsequent philosophizing social dogmas, depending upon dualisms and astronomical fancies, could teach; and those in the east have a more reasoned cohesion than the Egyptian, and, still more, than the Greek and Roman poetical physicalities, drawn from eastern sources and misinterpreted. In high Asia we find the legends of Europe extant in their sources. Many of the arts of social life are similarly derived from thence; every wave of invasion westward bringing new ideas; and, in later ages, the crusaders, coming from the east with loss and shame, still returned with the additional information they had acquired. From Madagascar, back to the Indus, we find a similar connection, and, in the South Seas, there are everywhere evidences of an Asiatic priority. Finally, the western continent of America is redolent of Malay, Mongolic, Ouralian, and even purer Caucasian sources, in physical as well as traditional objects.

In order to proceed to their various destinations, each typical stock naturally followed the great rivers in their course, for

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these are the natural directing lines of nations exploring the way to unknown regions; and the necessity of facilitating progression is the cause why all tribes, however rude, are acquainted with some mode of conveyance by water. Other roads were early indicated, by local necessities, differing from the subsequent caravan routes, which took directions from and to points already known to be most favorable for trafficking with distant nations, who had objects of barter to exchange, and, therefore, on both sides, had an interest in the speediest and safest passage. From the well-known proceedings of subsequent ages, it is clear that outcasts and scouts, then hunter families, would naturally be the first adventurers, and tribes would follow onwards only as far as immediate necessity or convenience might dictate; pushing further when more was known of the world before them, and pressure from new colonists urged them from behind. Starting through the gorges of the great river outlets to the plains, and following their course, or ranging along the flanks of mountain chains, to turn deserts, or escape the necessity of attempting elevated ridges, or interminable swamps, which were, or might be, impassable; while, at the same time, water, game, and wild fruits would be most abundant.

Deserts and plains are never so absolutely impassable as to prevent ulterior progress. Water is found in some localities, and occasionally verdure; and these oases are soon marked by the wanderer, who then guides his family or moving tribe along them, till they reach a better region. Impediments of this kind are, therefore, incentives to progress, and generally much less obstacles than morasses and dense forests; for it is by the river courses alone that these last are penetrated.

In the progressive colonization some leading tribe would find a natural obstacle to retard or prevent its further migration; halting on the spot, other clans would come up; and where no forests near the sea, nor a great stream, would favor the structure of rafts or canoes, intercourse occurring, more or less

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knowledge of the acquirements and experience each had gained would be the result, although it might be obtained after collision, by much slaughter and suffering, if not by the subjugation of one of the parties. Yet, out of these disasters rose almost all the elements of civilization; and it may be remarked, as a fact of constant occurrence, that human intelligence is perhaps never fully awakened to a progressive social system from suffering alone, but by intermixture, when races are packed together on the ultimate border of a sea, checked or forced to pass close upon or through each other, and to appeal to the sword. Thus, Palestine and Egypt, seated on the bridge that leads into Africa; Ionia and Greece, on the ferry of the Hellespont; Tangier and Cadiz (the Bisepharat of antiquity); Bab-el-mandel, the gate of tears, or passage into Africa; even the isthmus of Panama, all attest the fact, together with an additional result, which shows not so much the stationary people, as that which has passed on, to be likewise foremost in civilization. Such was Egypt compared with Syria, Greece in respect to Asia Minor; Spain with Africa; such was Peru to Mexico; and Western Europe is now, in comparison, to the east.

Total civilization is not even produced by the mere compulsory mixture of nations moving in the same direction; it requires the additional influence of the modes of thinking and acting, from sources coming through other latitudes, to pull down and reconstruct a system that will accept of a progressive march of reasoning, independent of ancestral routine. Had the northern nations, by their own ambitious free will, not crossed upon the older migratory movement that came from east to west, such civilization as Egypt, Greece and Rome had conferred, notwithstanding that marine influences had greatly aided in the development, must have continued stationary, then decayed, until they fell to ruin.* A want of

* The power of habit, of educational prejudices, is forcibly seen, in Christian Rome continuing wild beast and gladiatorial exhibitions, though

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such concurrence, as already observed, may be the sole cause why China has remained stationary; for even the slight shock lately given to that empire by Great Britain, has already had an effect, disproving the common opinion that the Mongolic mind cannot advance beyond a certain point. No people of the typical stocks could arrive at a progressive social existence, without intermixture of one or more branches of the homogeneous nations of the bearded and beardless forms; and through these, such rudiments of advancement as can be traced among the woolly-haired, were likewise engendered.

While nations pushed each other forward, and contested the possession of desirable territories, sudden extermination of the vanquished people generally lent but trifling aid to intellectual advancement; there was scarcely a desire to make slaves, where food was often insufficiently abundant for the victors; but when the great roads of colonization had been trodden by many nations to the verge of oceans, the result was different, because by that time Man had learned to subdue the Horse for his convenience, whereas, until that moment, the Ox alone appears to have been used for the saddle.* This conquest over brute power again commenced in high Asia, perhaps about Samarkand, but more certainly on the great plains north and west of the central table land; and with the aid of this valuable acquisition, began the era of invasion for dominion's sake; at first, in a more cumbrous manner, by charioteering; but, soon after, riders, on the backs of their horses, passing rapidly over immense distances, and almost entirely from east to west, carrying few or no wives or children, obtained both by the sword, and even spared the vanquished male sex, in order to enslave it.†

both had been repeatedly scenes of martyrdom, until they were stopped by a Pagan, held to be a barbarian, because he was a Goth.

* This was certainly a practice of Hindoo princes, before the Horse appears, and even long after. It is still in use among the Caffres, who ride their Bakeley Oxen in war; and by mendicant fakeers in India.

† Yet there are examples, down to the ninth century, when Christian

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From conquests by military invasion, there thus arose privileged families and tribes, a master class, in nearly every nation, marked, even at present, in many instances, by a distinct exterior, notwithstanding that, with scarcely an exception, it is issued from a cognate stem. Only time softened the bonds by gradual interunions, and by new conquerors again subduing both master and slave. In Europe, where the history of foreign subjugation is best preserved, there are instances of three or more having passed over the same people, each in turn crushing the former privileged orders. All were originally pastoral tribes, and they continued to conquer so long as agriculture had not yet fostered the other sciences of civilization; and defensive war was unavailing to scattered husbandmen, whose masters' subdivided power thwarted each other, and left the masses little worth defending. The nations who seem to have escaped servitude, it may be remarked, retreated to mountain regions, where cavalry had no advantage. Such are the Nilgherries, the Vindayan system, the western or modern Caucasus, the Alps, the Pyrenees, &c., all peopled by refugees, not by Autochtones. Mere insular situations did not afford equal security, because boats conferred the same invading facilities which the horse produced on land; and hence even the more remote South Sea Islands are not without a master race, which, in whatever way attention is turned, will ever be found to be directly or indirectly of the Caucasian stock, excepting only in those centres of existence where the two other typical forms of Man reside; for one of these, sensible of an inferior innervation, is possessed of a well-founded jealousy of the bearded race, and by political precaution endeavors to exclude it, while the other rests secure in the effects of climate; and both abuse their good fortune by, at least, inflicting subjection each upon kindred tribes; but much more restricted in the extent by the increasing progress of the Caucasian.

kings (Franks) could direct the slaughter of every male whose height surpassed the length of the conqueror's sword.

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West of Central Asia, all records agree in pointing to the east for the direction whence nations migrated. Only three exceptions occur, where the course was a return homewards from anterior progression. Such was the Hebrew from Egypt to Palestine, the Ionian from Greece to Asia Minor, and the Nogay Tahtar from Russia to China. If the Egyptians, led by a Sesostris, penetrated to Bactria, a fabulous Bacchus to India, the Gauls to Greece and Galatia, and the Macedonians to the Punjab, beyond the Indus, they were mere conquering inroads, which lasted only for a few generations, sustained in some degree by the aboriginal homogeneousness of the invaders with the races in possession of the land. The pseudo-Greek kingdoms, notwithstanding the great national influx of that people in Western Asia, had no permanent tenure; and the Romans, the Crusaders, and the modern French, have only produced military occupations, not national colonizations. None are historically known to have departed from the inter-Pontine Caucasus, though many came westward, by the route of Armenia, with more or less delay in that high region, because the avenues leading south and west, from both sides of the Caspian, to Asia Minor, Syria, and Africa, mainly pass through it.*

Had the first population of mankind radiated from the Ararat of Armenia (for the word is generical),† all the present nations of the west, whose great movements are historically traceable to the high Oxus and Jaxartes (such as the Gomerian Celtæ, and the Indo-Germans, Yuchi and Sacæ), would have travelled, without being pressed in the rear, across deserts, up great rivers and high mountain ranges, before they multiplied, for no other purpose than to return over the same ground, that

* Of course, the dispersion of the Jews eastward, and some more recent forcible transpositions of western Caucasian tribes to high Asia, are not here regarded.

† In the Circassian tongue, Ararat, Arak, or Areck, simply denote a peak.

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they might thence continue still further west than they had been east, and delay peopling only that portion of the globe which is unquestionably the most important of the whole; or for the sole purpose of fetching the physical elements of social life already mentioned, which western Caucasus never spontaneously produced, and to learn, at a distance, forms of speech, fundamentally belonging to the oldest Scythic, or a parent Sanscrit — a language found to influence, with very few exceptions, every known grammatical tongue in the world, though, in its present shape, it may be a mixture of various dialects. Asiatic early lore proves this primæval tongue to have originated in the southern and western Highlands already noticed, and to exist still in many idioms, spreading from their border through India, Indo-China, and, with less evidence, to Australasia, far more than to the west, in Europe, Persia, and Syria; and none of its dialects positively belonging to western Caucasus. The present Imeritians, Circassians, &c., though they may have a just claim to be of the purest bearded typical stock, like the Coords, or Gaurs, were originally riding conquerors, and were driven into their present fastnesses at a comparatively recent period.

If we turn to India, although the woolly-haired stock may have retained, from priority of diffusion, a typical nucleus within the tropics, expanding even westward, there is a master race, of a distinct origin, domineering over the oldest discoverable tribes, gradually more and more intermixed, till, from pure white, it becomes positively black, without, therefore, being deprived of a superior aspect, which the Caucasian blood alone confers. It extends, with few exceptions, down to very near the equatorial line, where, indeed, contamination is still observable; but the mastery of a foreign race evidently disappears. These conditions recur, in a south-western direction, along the Persian and Arabian maritime provinces, and eastern Africa; the Caucasian, whether brownish or black, preponderating numerically towards the shores of the Mediterranean, exactly

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in the ratio structural conformation would prefer, if left at liberty. This intermediate sub-typical race, in all its shades of color, is the Ethiopian of antiquity, and seems to have included those tribes which were held accursed by several of the most ancient white immigrators in Western Asia.

The Mongolic nations record, in the same manner, their descent from high mountain ranges, and the early struggles of their heroes in draining marshes, teaching cultivation, letters, and metallurgy; in time, making even regular observations on comets, when the wisdom of Europe was hidden in a howling wilderness, and long before science amongst us assumed a rational shape.* In America, all the tribes that retain traditions of their origin, point to the north-west, with the exception of the extinct Flatheads, whose history is wholly unknown. They have propelled each other east and south, although certain tribes of the most ancient residents in the south-east and Patagonian regions, may form exceptions; and there are traditions, even in Mexico, of marine strangers from the east; for man soon passed from fishing on the lake, or paddling in a stream, to adventure his person beyond the surf of seas; and, when it served his purpose for coasting, trusted to the simplest materials to support his weight. Catamarans of three dry pieces of wood, and a staff, with flattened ends, for oars, have been in use, for uncounted ages, on the rolling seas of Madras, and models like them are often dug out with the bones of ancient Peruvians, where the inhabitants have similar breaking rollers to encounter. Coracles, made upon a frame of twigs, with the skins of seals, oxen, and horses, belonged to most nations of the Old Continent; birch kaicks to the Arctic people of both; and canoes of solid wood, hollowed out, to every portion of the globe. When these had attained a certain bulk and adequacy of structure, a family might transport itself from one end of the world to the other, in a few seasons, merely by coasting. Thus did the messenger of Vasco de Gama pass, in

* See Biot on Comets.

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an open boat,* from Diu, in the East Indies, round the Cape, to Lisbon, in safety. In this manner, opinions, languages, and records, were transmitted, unadulterated, from the Euxine and Asia Minor, as far as Britain, in a single generation; while the tribes whose fate it was to travel by land, were compelled to fight their way onwards for ages, gradually losing all memory of the pristine fatherland, and unable to recognize their ancient kindred, when they met again in the west, but by broken accents of a once common language, as is sufficiently evident in the meeting of the devious tribes of Gomerian Celtæ.

In the view here taken, mankind might be primitively arranged somewhat in the form of the diagram on page 222, supposing the apex of an equilateral triangle to point to the north.

Thus, we have the southern line representing the Himalaya chain, with its great streams ending at the Indian Ocean, the eastern similarly leading to the Pacific, and the western to a sea gradually contracted into the Caspian; and the intermediate, conducted by geographical necessities, reaching the South Seas, the Northern Pacific, and from thence to America, the Polar and Western Regions, and the Erythrean Seas to Northern Africa. Of these, however, the Caucasian alone bears evidence of commencing development upon the table land, and under the shadows of the western chains; the Mongolic being at first no nearer than the eastern extremity of the Gobi, and the woolly-haired type coming up to, and along the skirts of the southern chain, rather than commencing primæval diffusion so far to the north of its general centre of existence.

The review of typical and sub-typical forms of Man, intended to be submitted here, appears to be best arranged by taking in succession the woolly-haired; the Malay and mixed races of

* It is supposed that Iago Botello used a pattemar, or Cutch native boat, in this daring voyage. The vessel was half-decked, but only 16½ feet long, 9 broad, and 4½ in depth.

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the South Seas; the American abnormal nations; the Mongolic, or beardless; and the Ouralian and Toorkee. From these we arrive at the true Caucasian, whose early history, being best known from the south-east side of the central region, will require that first the mixed semi-woolly-haired tribes of South and Western Asia be examined, in order that the great influence and expansion of the bearded stock may be established; and the records of its principal races will form the remaining subject of consideration.

Beginning, therefore, with that form which may likewise, on that account, be considered as the most ancient, we find, —

THE WOOLLY-HAIRED TROPICAL TYPE.*

THE woolly-haired, tropical, dark-colored stock, improperly called Atlantic and Ethiopic, is considered to be most distinctly typical, where the maximum of development is found, in the peculiarities of structure and faculties that distinguish it from the other normal forms. It is that which predominates in Central and Western tropical Africa, — a form of Man of good stature, though seldom attaining six feet in height, and falling

* By this denomination is understood, not wool, strictly speaking, but hair so highly frizzled as to appear like the wool of Iceland sheep, and in coarseness so rude, that the wool of a Negro head, struck with the knuckles, frequently cuts the skin to the bone. The pile of the beard, &c., is equally file-like or lacerating. These effects we have repeatedly witnessed. Though within the tropics no microscopes of sufficient power were at hand to test the fact, the general impression was, that this kind of hair is angular, and we doubt that Dr. Prichard's observations on the subject are wholly satisfactory, — the less so since the hair of the head seems to have been exclusively examined, in all the researches we have been able to consult.

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as rarely beneath five feet six; the facial angle varying from 65 to 70 degrees; the head being small, laterally compressed; the dome of the skull arched and dense; the forehead narrow, depressed, and the posterior part more developed; the nose broad and crushed, with the nostrils round; the lower jaw protruding, angular, but more vertical in nonage; the mouth wide, with very thick lips, black to the commissure, which is red; the teeth large, solid, and the incisors placed rather obliquely forward. The ears, which are roundish, rather small, standing somewhat high and detached, are said, like the scalp, to be occasionally movable; the eyes always suffused with a bilious tint, and the irides very dark. The hair, in infants, rises from the skin in small mammillary tufts, disposed in irregular quincunx, and is, in all parts, of a crisp woolly texture, excepting the eyebrows and eyelashes. In men it is scanty on the upper lip, generally confined to the point of the chin, without any at the sides of the face, excepting in late manhood. On the head it forms a close, hard frizzle of wool; in the pure races never hanging loose, nor rising into a kind of mop; and the breast sometimes has a few tufts, but the arms and legs are without any. The throat and neck are muscular, and, with the chest, shoulders, abdomen, hips, back, upper arms, and thighs, very symmetrically moulded;* but, compared with the Caucasian, the humerus is a trifle shorter, and the forearm longer, thereby approximating the form of Simiadæ. The wrists and ankles are robust; the hands coarse, with phalanges rather short, particularly the thumb; and the palms are yellowish. The legs have the shin-bones slightly bent forwards, and

* The late Sir Francis Chantrey's magnificent cast of a Torso, taken from a Negro in London, bore ample testimony to this fact. Our own sketches of the naked figure, drawn during a residence of twelve years within the tropics, gave so much additional proof, that the great sculptor was tempted to copy several for his own use. With regard to the other sex, the tropics alone produce the combination of infantine natural grace with the full development of female maturity.

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the calves p aced high up; the feet broad, heavy, squarish, with the soles flat; the os calcis less prominent; the toes short, more equal in length; and all the nails strong, short, and broad. The skin is soft, silky to the touch; in the new-born infant, dull cherry-red, gradually darkening to the permanent depth of shade; beneath the epidermis the mucous membrane, loaded with a coloring matter in the bile, causes the melanic appearance of the skin, which varies, however, from deep sallow to intense sepia black; darkest in health; and that color always distinctly affects the external glands. It is likewise the source of an overpowering offensive odor, spreading through the atmosphere, when many are congregated in the hot sun. The silky texture of the epidermis is more liable to erosion from pressure than that of white men. It is a character as organic, or more so, than the arched dome of the skull, and the perpendicularity of the vertebral column, which are quoted as the sole cause, why burthens are best borne by Negroes on the head instead of the back; for their general structure is athletic, the gait erect, free, and in young persons not ungraceful.

It appears that some tribes in Dongola and Sennaar have one lumbar vertebra more than the Caucasian, and the stomach corrugated.* In general, the female pelvis is wider, the aperture round, and both sexes have the hips remarkably well proportioned. The bones of the typical nations are heavy, well knit, or with the apophyses fitted to receive broad insertions of the muscles; and the dome of the skull is particularly solid, but the ribs slender and flexible. Hence, Negroes, of all human beings, are distinguished for fighting, by occasionally butting with their heads foremost, like rams, at each other, the collision of their skulls giving a report that may be heard to

* "Observations sur les bataillons Negres du Cordofan au service de Mehemet Ali en Egypte et qui servirent en Candie." By a German surgeon. The same remarks are likewise offered, we believe, by Dr. Madden, Travels, &c.

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some distance. Even women, in their brawls, have the same habit. The dense spherical structure of the head, likewise, enables several tribes to shave their crowns, and in this exposed state to remain, with the lower half of the body immersed in water, under a vertical sun. This very structure may influence the erect gait, which occasions the practice, common also to the Ethiopian or mixed nations, of carrying burthens and light weights, even to a tumbler full of water, upon the head; a feat which they effect with perfect safety and gracefulness.*

Most of the black nations are capable of protracted toil, without much injury to their frames; they willingly share labor with the female sex in a state of independence as well as in captivity; they dig, hew wood, carry, walk, or row, for many hours, in a tropical sun, without repining. They multiply on mountain and in morass, in sterile and in rich soil, throughout the tropical region. Though a new locality like South America be not their original centre of existence, they spread, on both sides, beyond the equatorial belt, over the lower degrees of the temperate latitudes; do not decrease in the presence of Caucasians when not overworked by their task-masters; and flourish under the fiercest solar heat, when other types of man decay or perish. In constitution, they escape or withstand many of the most virulent epidemics, among the rest, small-pox, so fatal to all the American races; and others, incidental to the tropics, or introduced by Europeans, visit them with less violence.

In South America, where the indigenous tribes diminish, in regions where white men are but little known, the Maroons

* Though the practice is general, pride nevertheless can counteract it; for we have invariably seen the Jamaica Maroons carry their produce to market on the back, and take their rest under distinct trees, apart from slave Negroes, because, as they told us, they would show themselves "free like Buckra man!" A second jar of water, Negroes always carry upon the palm of the hand inverted.

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or Negroes, escaped from Portuguese, Spanish, and Dutch slavery, increase; they have established independent communities in the swampy regions of Guiana, and, still more, between the rivers Amazon, Iza, and Japura, where, under the name of Jurie Negroes, they occupy an extensive territory, since they expelled the Moruas and Maruquevare Indians. These, however, together with the Haytian, the Jamaica Maroons, and Guadaloupe Quelehs, as well as all the West Indian and North American woolly-haired populations, being the offspring of the greatest intermixture of different African tribes, and not entirely free of European and American Indian admixture, are excited by acquired knowledge, under new circumstances, and therefore capable of a united and reasoned energy. They have mostly lost the peculiar features belonging to the different African parent tribes. Their heads are larger, as is seen also in Dr. Morton's measurements, who, we are inclined to believe, was not aware of the rapid change that takes place in the development of the skull; though, even in Europe, the difference of size in heads of the educated and uneducated classes, among civilized nations, is no secret to hatters. In this condition, colonial born Negroes are often ingenious handicrafts. We have known a slave cooper, whose owner refused to grant his emancipation for less than £600. They make good masons and joiners, and excellent steersmen at the wheel and tiller are not uncommon.

The voice of Negroes is feeble and hoarse in the male sex; exceedingly high and shrill in females; the sense of sight is acute; that of taste sufficiently delicate; hearing sharp; with notions of time, but very little of melody; yet fond of music, and constantly handling instruments of the most imperfect kind, excepting a species of harmonicon, made of slips of bamboo, or of a set of sounding stones, — if it be that these are of their own invention. They have drums and a kind of castanet; but stringed instruments are derived from a Moorish source. Though the physical qualities are well developed, the

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intellectual are low, in some tribes quite puerile; yet the moral impulses are not unfrequently of a most noble nature. They offer, therefore, a discordant mixture of qualities, wherein the good predominates, till the European, not misguided by personal interests or prejudices, cannot refrain from feelings of affection for them. They all believe in some kind of future state, though religious sensations are with them superstitious and childish mummeries, too often connected with *fetiche* necromancy, which deals in the crimes of poisoning and murder. Thought is habitually dormant, and, when roused, it is manifested by loud soliloquy and gesticulations, regardless of circumstances. War is a passion that excites in them a brutal disregard of human feelings; it entails the deliberate murder of prisoners; and victims are slain to serve the manes of departed chiefs. Even cannibalism is frequent among the tribes of the interior. But these habits were once not unknown to the highest endowed Caucasians; human sacrifices belonged to the heroic age of Greece; to the historical of India, Phœnicia, Carthage, Egypt, and Celtica; to nations who must have known better, and were not, like the African savage, in mental nonage, without neighbors to teach a better doctrine or more humane example; for wherever higher moral duties have been promulgated to Negroes, they have been quickly accepted. Notwithstanding the listless torpidity caused by excessive heat, the perceptive faculties of the children are far from contemptible. They have a quick apprehension of the ridiculous; often surpassing the intelligence of the white, and only drop behind them about the twelfth year, when the reflective powers begin to have the ascendency.

Collectively, the untutored Negro mind is confiding, single-hearted, naturally kind and hospitable. We speak not without personal experience. The female sex is affectionate, to absolute devotedness, in the character of mother, child, nurse, and attendant upon the sick, though these be strangers, and the often experienced reward scarcely amounting to thanks. As

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housewives, they are charitable to the wants of the wayfaring visitants; within doors orderly; and, personally, very clean; they are joyous; noisy; in the night-time indefatigable dancers equally with the men, who are in general orderly, trustworthy, brave and unrepining. Both sexes are easily ruled, and appreciate what is good, under the guidance of common justice and prudence.

Yet, where so much that honors human nature remains—in apathy, the typical woolly-haired races have never invented a reasoned theological system, discovered an alphabet, framed a grammatical language, nor made the least step in science or art.* They have scarcely comprehended what they have learned, or retained a civilization taught them by contact with more refined nations, so soon as that contact has ceased. They have at no time formed great political states, nor commenced a self-evolving civilization. Conquest with them has been confined to kindred tribes, and produced only slaughter. Even Christianity, of more than three centuries' duration, in Congo, has scarcely excited a progressive civilization, because it is unattended by the stimulus of a stranger race (for the small number of Portuguese officials, priests, exiles, criminals, and slave merchants, are inadequate, and of all European nations least capable of stirring the mind to activity, by education, and the example of exertion); notwithstanding that the nations south of the Zezere have a more intellectual aspect, and have a barter trade across the continent to Mozambique.

Thus, the good qualities given to the Negro by the bounty of Nature, have served only to make him a slave, trodden down by every remorseless foot, and to brand him for ages with the

* The simple formulæ of Negro languages remain, when they are obliged to learn European; thus, all the Negro slaves of tropical America speak a dialect in form the same as the general African tongue, though the words are Spanish, Portuguese, French, English, Dutch, or Danish. Education and time have no doubt made the present generation more grammatically correct.

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epithet of outcast; the marked unceasing proof of a curse, as old as the origin of society, not even deserving human forbearance! and true it is, that the worst slavery is his lot, even at home, for he is there exposed to the constant peril of becoming also a victim, slaughtered with the most revolting torments.* Tyrant of his blood, he traffics in slavery as it were merchandise; makes war purposely to capture neighbors, and sells even his own wives and children.

A second stem of the typical group is the eastern tropical or Samang, which we shall continue to denominate Papua, notwithstanding recent investigations have endeavored to confine this name to a more hybrid population of the Australian islands. It is in general greatly intermixed with Hindoo, Mongolic, and Malay blood; and in comparatively few localities sufficiently pure to retain the close crisp woolly scalp which is the most decisive criterion of the fact; for, so soon as, in any warm climate, there is foreign alliance, the wool becomes bushy, and rises into a huge round mop; and, if there be still greater connection, it droops, and gradually turns into incipient curls. By this token the amount of adulteration may be traced, independent of the color of the skin, with perhaps no exceptions, although it is true that there is in some cases a tendency to variation, in the offspring taking, in one birth, a more decisive maternal character, and perhaps in the next a paternal, even to the extent of modifying the hair, particularly between true Negroes and hard lank-haired South Americans of the Austral-Malay cast of structure. These remarks show that the earlier Egyptians had only a casual knowledge of the true Negro populations; for, when these were first noticed, they occupied, it seems, the high lands behind the east coast of Africa; and the ages they may have nestled in the central regions, without further progress west-

* See Bowdich's Mission to Ashantee.

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ward, may be surmised, from the Phœnician navigators, who reached that coast by the Atlantic, not mentioning the presence of real human beings to the south of Cape Blanco, since they brought back to Carthage specimens or skins of the Chimpanzee, which at no time could exist to the north of the great rivers, where alone there are trees and food. The abnormal are portrayed on Egyptian temples, often repeated, with great bushy heads; but real Negroes may be alone intended in the figures of black human victims, significantly offered to a Python god. In Asia the circumstances were different; to this time the Hubbashee clans of real Negroes exist in Laristan and Mekran, in Persia, and even on the Helmund; and are evidently of the primitive race, to the south of the Himalaya chain as well as Southern Persia.* This type forms the primæval inhabitants of the Australasian and many tropical islands, although they have been rooted out or subdued to form a low cast of slaves in most of them; and notwithstanding that a remote idolatry, of Papuan origin, can still be traced out in parts of India, and sovereign families even claim descent from monkey gods, that is, from primæval Bheels, the worship has changed to Brahmanism, and the ruling dynasties are now of high caste Caucasians, as will be shown in the sequel. Only, in the larger islands, the Papua tribes are in general still found masters of the central mountain forests. Rarely, however, is this branch of the Negro stock equal in stature and vigor to the African.

* Professor Wilson, in his notice of the animals, &c., mentioned by Ctesias, gives some account of the Kalestrii; and in my manuscript note upon it, I find, that "there were other tribes, higher up the country, and nearer the sources of the Indus, who were very black, drank no water nor ate corn, but lived on the milk of their flocks." These were, perhaps, the typical Asoors or Azuras of Hindoo mythology. Abulghazi speaks of black people residing between the Hylas (Cabul?) and the Indus. (vol. i., p. 15.) The present Aghori, by Ctesias named *Andropophogoi*, and by the Persians Mardikohr, still occasionally feed on putrid human flesh, and reside in caverns about Aboo, among the Jains. They cannot well be Caucasians, nor are they Mongoles.

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Sometimes varying to yellowish-brown, it is in color sooty-black; in stature often so diminutive, that the small heads they have appear large, the more in disproportion, because the extremities are feeble and slender. Such at least is the case with many of the tribes still possessed of retreats in the Malay Archipelago and Peninsula; but this form of the woolly-haired stock, unlike the African, diminishes rapidly before the encroachments of Malays, Arabs, and Europeans. Many of them prefer death to slavery; others vegetate in that condition, their marriages not producing more than one or two children; and some, becoming Mahometans, form mixed populations, where Horafoura and Malay, Hindoo and Arab, Chinese and European, have been promiscuously mixed, and their characteristics obliterated. In this way Western Asiatic nations, with more undulating or lank hair, were likewise formed, by intermixture with the low-fronted Dombuks, Nimreks, and Kakasiah, or black brothers. They may have influenced even the black Kalmuks, the Colchians of Herodotus, and the black Bedoueens.

From the geographical position of the purest Papua Negroes, it is evident that they have been the first race expelled the coasts and plains, since they are insulated in the mountains, or driven to the unhealthy equatorial points, where other tribes cannot multiply. Hence, they are the oldest primæval race, even if it should be denied that they are a population of anterior date to a great territorial cataclysis, which submerged a continent beneath or on the south of the line. It is also evident, that around them, and northward, up the Indus, to the southern foot of the Himalayas, the (Nishada) most ancient nations, with some relation to the distance from their equatorial centre, bear strong marks, in structure, intellectual capacity, habits, color, and hair, of a succession of intermixtures with races coming down by the gorge of the Brahmaputra, and along the eastern secondaries of the great mountain range, causing a Mongolic adulteration; and, on the north-west, by the Cabul

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and Indus, another of Caucasian blood, passing to the plains of India in overpowering numbers; and by the Ganges and Jumna; likewise along the western flanks of the range from Cashmere, and indeed from China itself, where, in the earliest ages, the bearded race had numerous colonies. But there is no evidence of the woolly-haired stock possessing, at any time, the valleys above the secondary ranges, since none are now found shut up in the colder mountains; and the bearded races, tenants of the region, are fair, and not unfrequently marked by gray eyes, and light or red curled hair, showing how remote was the starting-point from whence they first proceeded. Both the earliest known invasions of the Indian peninsula, coming in successive waves, demonstrate how variously crossed and intermixed have been the populations already, before the recorded historical repetitions of the same movement took place. Similar events were equally in active operation to the south-west, through Persia and Syria. While a proportion of the black races may have coasted towards Africa, others no doubt passed through the isthmus of Suez, and by the Arabian shore into their present central region, leaving marks of their progress in the Mekran, and other fish-eating Suakim on the African shore.

The Papuan stock, notwithstanding mental and physical deficiencies, has advanced to the pastoral and even agricultural conditions, when not molested by invaders, and favored probably by some foreign innervation; for, in a pure, unmixed state, no eastern Negro tribe has passed beyond the profession of hunter, or is observable on islands at more than a moderate distance from its Australasian centre. The inapprehensive character of their constitutions, or an impulse which leads them to the sea, induces both African and Papua stems readily to accept a marine mode of life. They are generally excellent swimmers; they dive fearlessly, and will fight the shark in his own element. Yet they have never invented the construction of large canoes, such as the Malay and American make with

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so much skill. The marine enterprise, however it may have been occasioned, is manifest even among tribes residing far inland;* such, for example, are the brave and honest Menas or Kroomen of Western Africa, who all become in some degree sailors; and colonial Negroes, who are often seamen in the merchant service.

In what manner the black Caribs of St. Vincent first reached the Western Hemisphere, is narrated upon questionable evidence. Those said to be remains of this adventitious race, are still excellent boatmen; and if Peter Martyr (Decads) may be credited, there was a Negro population already established on the coast of America† before the arrival of the Spaniards.

On the west coast of Africa the most energetic tribes are Coromantees, very black, and marked on the cheeks with tribal scars. They are a daring and martial people; when enslaved, often rebellious. The Eboes, on the contrary, are less vigorous, paler in color, with a more slender form and elongated features. They are a gentler race, yet more truly savages; and, though addicted to despondency and suicide, they were formerly sought for house servants. The Widahs, or Fidahs, are of the stem usually called Papaws and Nagas in Africa; they resemble the Papuas of the Indian Ocean more than any other race; and they assimilate likewise with the Eboes, but are still more submissive as slaves. They have a baboon-like expression, and the peculiarities of the Negro

* The fearless propensity to venture on the sea was shown in Jamaica, during our residence on the island, by two very young Negro lads, both natives of the interior of Africa, who could know little more of a water life than perhaps fishing on the Niger; yet they stole a canoe; and, unprovided with food or water, went to sea from Port Royal harbor, with the resolution of returning to their own country! The poor lads were fortunately picked up by a merchant ship, when they had already drifted far out to the south-west, and were nearly dead from exhaustion.

† Peter Martyr, who wrote from the manuscript documents of the first discoverers then living, cites Vasco Nunez meeting with a colony of Negroes at Quariqua, in the Gulf of Darien. This, it should be remarked, is anterior to the introduction of black slaves.

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type strongly marked. Among them, in particular, the Naga tribes practise circumcision, and have other eastern indications about them; the Cumbric Negroes may belong to this branch; and the Mocos, who file the teeth in order to resemble the Lion, are still cannibals, and the most savage of the Papaw nations. Like the eastern Papuas, they are of a dirty black color, and have the same Jewish rites as the rest. Hebrew or Semitic words occur in their dialects, as in the Houswana tongues. Ideas, and perhaps affinity with the Angola and Benin tribes, recall to mind the still existing barter trade across the continent to Mozambique, and this may point out the route from the east by which they may have come to their present location; for, had they spread from west to east, no oriental words or institutions would be found in their ancient national dialects or habits.

In Eastern Africa, the woolly-haired races, though occupying a vast extent, are likewise of intermixed origin. The whole east coast is possessed by nations tinged with Arabic blood; the extreme south by apparently an outcast Mongolic population; and, from the north, Gomerian tribes have likewise produced commixtures to beyond the Senegal. Among these, ancient Numidians appear to have been propelled by Arabian conquerors, and to have originated the red and black Poulas, so called in proportion as the brown or black color of their skins predominates. These have horses and camels, unknown to all other Negroes, and are now Moslem. The Jaloffs are a branch of this stem; and the Mandingoes, once a nomad people, bear evident tokens of a more northern origin, only in part effaced by intermixture with true Negroes. Beyond the Menas or Kroomen, on the Gambia, there are, however, important nations of true Negroes, such as the Basus and Buyere on each side of them; and in the interior of Africa the mysterious Ba-u-ri.

Of the African stock the most conspicuous abnormal stem is the Kafir or Caffre, a race which, having a Semitic innervation, has risen in stature, intelligence and beauty, above all the

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tribes of nearly pure Negro blood. They have formed states of some extent; they build large towns; possess the art of smelting and working metals; are very considerable graziers; and have some agriculture. The Caffres have trained their war or Bakeley Oxen to be ridden in battle;* have large, and, in some measure, organized armies, distinguished by decorated spears for ensigns, and shields painted with different cognizances for each corps. Among the men there are individuals nearly seven feet in height; and the women frequently possess considerable beauty. Extending on the south-east coast to Port Natal, they have all, it is asserted, formerly migrated from the north-west, or Central Africa; but this is evidently only the expansion of increased population, which, in earlier ages, shrunk from the barren coasts, and, since returning, have directed their march to the south-east.

Next, or perhaps superior to them in energy, are the Galla or Sidana nation, constantly encroaching on the Abyssinian states, and containing several mighty tribes; such as the Sooalla, seated from the equator to Mozambique; the Soomallees on the north of them, and the pure Gallas in the interior, who are chiefly composed of Carrachi and Boiran tribes — all speaking dialects of one great language.

In the east, the propensity to an aquatic life is likewise manifest, for true oriental Negroes inhabit the Nicobar islands, and spread through many Australasian, Philippine, and more eastern groups, though they are often intermixed with Malay, or with Hindoo races, who have modified their characteristic dis-

* No doubt, oxen were ridden in India before war-horses were introduced by the north-western conquerors. There exist allusions to the practice; and I have copied an Indian Rajah, seated on his war-ox, from a painting on ivory. Siva on the bull Nundi represents the same fact; and the African Caffres, having the like custom, may indicate the region whence they emigrated, and the date as anterior to the arrival of domesticated horses in southern Asia.

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tinction, and there also, in general, constituted a privileged order among them. This occurs even among the Tasmanians, the lowest race of oriental Negroes, and now nearly extinct, yet still familiar with water. The New Holland Papuas, who, for want of trees serviceable for excavation, venture out upon slips of bark but slightly bound together at the extremities, or on pieces of drift-wood, not capable to support them until their bodies are partially immersed; nay, on the central lakes of Africa, Negroes venture out, riding a stick, having two open calabashes, one before, the other behind, which buoy them up sufficiently, to admit in them the fish they catch, and stun or kill with a billet.

The Papuan of Australia is, in many respects, the most sunken of human beings, and is partly mixed with Horafoura tribes, whose presence is indicated by the hair being more drooping and matted, the features less debased, and the limbs more masculine. Some tribes towards the north are even fair, and appear to have a tinge of Malay blood, perhaps imported by the Trepang fishers on the coast.

If the woolly-haired type, in the oriental portion of its distribution, is often of the smallest and ill-made proportions, there are instances (perhaps, indeed, of races already somewhat mixed) where they rise to six feet high, and possess powerful frames, as was lately discovered in the interior of Australia. But, in all, where any religious sentiments have been observed, they seem to be imported, or sink into the lowest puerilities. This is also the case in Africa, where the divinities are spectres; or are reptiles, lizards, insects, birds, or beasts; gods in one season and game in another; or they are wretched little idols they call *Fetiche*, a word derived from Pet, *pataichos*, of Phœnician or Egyptian origin; and, as it evidently means father, shows that, in the first acceptation, was implied veneration for departed tribal or family ancestors, but became degraded to a kind of idolatrous worship, which, in the hands of Negroes, is bestowed upon monkey skulls, bits of bone and rag;

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or is a gross scarecrow, set up under a canopy of straw. The Negro has shown always a great propensity to incantation and sorcery; has recourse to protective amulets, which he calls *Grisgris;* and positive impostures are both believed in and practised by the male part, without an attempt at reflection; although, in other respects, he can be a mimic — and does not want craft in the mysteries of huckstering, or of small dealing, which all classes are inclined to. These propensities can be traced to the extent of a kind of caravan trade, and the frequentation of sacred, or, at least, neutral marts, scalas, or ventas, where dealers assemble at stated periods within the precincts of Nigritia, for elsewhere the lawless ferocity of slave-making Caucasians has rendered the practice impossible to the Negro race. All these opinions and customs are, however, perfectly in harmony with the oriental development of the woolly-haired tribes; with their primæval passage even through Egypt and the desert, which most recent discovery shows to be still, in parts, not entirely barren; although, as Dr. Hoskins has proved, increasingly desolate.

The Horafouras, or Alforees of the Australasian islands, are, we believe, the first and most ancient abnormal race of Papuan origin, tinged sufficiently with Malay blood to possess the energy and malignant ferocity of that people; while they have the color and the great mop-formed hair, which result from an interunion thus formed, and, having greater mental development, their social progress is more advanced. They possessed already, in remote antiquity, the means of marine venture, which causes their descendants to be found singly, or partially mixed with Caucasian blood, on most of the South Sea islands.

They appear to have been the leaders of that generally prevailing fashion among those tribes, of tattooing the skin not only of the face, but nearly of every part of the body; distinctly marking, by means of raised lines and figures, the family clan of every individual so adorned.

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The Negro or woolly-haired type, independently of diluvian convulsions, appears, as before stated, originally to have extended northward to the lower ranges of the Himalaya chain, if indeed that region was not its original seat; and that it did *not* extend, in a pure or perhaps somewhat mixed state, eastward to Japan, may be surmised by the present population of Formosa being apparently descended from an expelled people, once resident about the coasts of China. It is confirmed from the existence of a black stock, with Caucaso-Mongoles, and now termed Min-leu, black-haired people; a denomination which implies a distinct race, not genuine Chinese. The same inference may be drawn from the black people mentioned by Abulghazi, and even from the melanic Californians on the west coast of America.

In this view, the first migrations of the Negro stock, coasting westward by catamarans, or in wretched canoes, and skirting South-Western Asia, may synchronize with the earliest appearance of the Negro tribes in Eastern Africa, and just precede the more mixed races, which, like the Ethiopians of Asia, passed the Red Sea at the straits of Bab-el-mandel, ascended the Nile, or crossed that river to the west; for that movements of this kind were long continued, is apparent, from the Nagas or Norages, who visited Spain and the Mediterranean islands under Norax, so late as the dawn of authentic history.

Taking the whole southern portion of Asia westward to Arabia, this conjecture, which likewise was a conclusion drawn, after patient research, by the late Sir T. Stamford Raffles, accounts, more satisfactorily than any other for the oriental habits, ideas, traditions, and words, which can be traced among several of the present African tribes and in the South Sea islands; it points out the primæval cities of the woolly-haired people in Nangasaki, or rather, in its ancient form, Nagaraki, according to Pfitzmayer; Nagara, now Cashmere;

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Nagara, the known capital of a most ancient Naga people.* Further, in the plains, are Nagpoor, and a ruined city without name, at the gates of Benares (perhaps the real Kasi of tradition), once adorned with statues of a woolly-haired race; and lower still, on the Indus, Pattala, the ancient empire of the Naga or serpent kings, before it became a mythological legend. These cities existed, and a given social state was advancing to civilization among the typical woolly-haired tribes of higher Asia, but declined and fell, from the moment the Hindoo races invaded Bharata or the peninsula of India. The people, nevertheless, which they subdued, expelled, and vainly endeavored to extirpate, survived, in scattered purer groups, in the more inaccessible parts of the continent, chiefly along the subordinate ramifications of the Himalaya range, from the Indus to Indo-China, and the Malay peninsula; or in the form of hybrid tribes, even at present lurking in the Vindaya chain, and spread through the southern states to Ceylon. Taking the characteristics of some tribes still remaining for the general standard, they were a strong-built under-sized people, with a depressed forehead, frizzled hair, crushed nose, thick lips, and black skin, all to some extent cannibals, and incapable of rising, by their own intellectual powers, much beyond the degrees of social improvement they had attained; yet not so low, but that some of the worst features of their religious and moral notions were adopted by their conquerors. The names of the nations varied of course. Among the most ancient and general, was that of Nats, Nagas, Nishadas, Kabendas, Bhils, and Puharees.† They are now found under similar denomi-

* This Nagara stood on the Indus, between latitude 32 and 33°, and was a Dionysiopolis, according to Ptolemy; but more probably the fanum of some Naag Sahib, a serpent god with human sacrifices, such as the Naag tribes had upon the upper Nile, and still retain in Cutch. Naag and Naga, if it be a Sanscrit word, is also well known in more than one African dialect.

† Several of these names recur, most significantly, among the Negro tribes of Western and Southern Africa, particularly those of Nagas or

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nations, such as Cutchees, Bheels, Binderwars, Paharias of Bhangulpoor, and Mongheer, who are complete Papuas; there are the Sedies of Canara, Dacoits of Bengal, Ghonds of Ghondwana, Koolies or Kholes, Lurka Kholes, Cookies or Nagas of Indo-China; Bedas or Vedas of Ceylon, &c. In Persia are the Hubbashie and Mekran fish-eaters; and the Jamaules, near Aden, and the Ovahs of Madagascar, are partially mixed races.

The most aberrant of all are, however, the Houswana nations, the Hottentots, Bushmen, Coranas, &c., all of a lemon peel or dirty yellow color, and often with strange peculiarities of form; speaking dialects inimitably articulated, and possibly forming a hybrid race of Mongolo-Papuan origin; one flung abroad at so remote a period, as to have preceded both the true woolly-haired tribes, the Ethiopian, and the Caucasian nations, since they, together with the Ompizee of Madagascar, a portion of the inhabitants of Fernando Po, and the ancient Guanches of Teneriffe and the islands of the west coast, seem to have belonged to the same origin, and to have been driven off in all directions by the Negroes who succeeded them;* until, at a later period, they effected interunions, which form some of the modifications among the black tribes, and constitute the existing populations above named. That certain tribes, of a partially civilized race, preëxisted in the present Caffraria, is even proved by the rectangular stone walls of old Leetakoo (Leetakoon, in the Caffre dialects, denoting the old stone buildings), the ruins of which still remain, in a country

Nagoes, Puharees, Menas, and, perhaps, Galla; for in India the Gwalla, or grazier profession, is the same as that of the African Gallas, who also bear another Asiatic and their true name of Sidana. Gal, Gail, in Celtic, moreover, denotes a stranger or wanderer, therefore radically also a nomad.

* To this expelled sallow people may be ascribed also the ruins of houses, which are reported to have been still visible in the Canary Islands, at the commencement of the ninth century; as related by the Irish Monk Dicuil, in his curious work, "De Mensura Orbis Terræ." He wrote in the year 829, and is better known by the name of the "Anonymous of Ravenna."

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where the Amazula, Bachapin, or Caffre population, never have built a house but of reeds and clay.

In north-eastern Africa, an expansion similar to that in the south is taking place: the Cushi, Kopths, Mauritanians, Abyssinians, and Arabs, gradually diminish or become absorbed; the Negro races press forward, by the Bahar-el-abiad, upon Egypt, and through the desert, upon Morocco, not so much by conquest as by the increase of their numbers; a result which continued slavery only tends to hasten. Such also has been the consequence in Hayti and in Central America; nor can the evil effects impending over Brazil, and even over our own colonies in the west, be avoided, but by timely liberal and humane laws, aiding a true, zealous, and applicable system of education. The really good qualities, and single-heartedness of the Negro, may then be safely expected to evolve that quiet coöperation and patriotic feeling which justice will teach him to appreciate; but the prejudices of colonists have still much to retrace and to unlearn. Fear alone imparts moderation and reason upon masses, who believe they derive an advantage from injustice.

Before concluding, we may mention here the gradations through which intermixtures of the typical stocks are distinguished in the West India Islands. The offspring of a black and a white parent is denominated a *Mulatto;* a black and a mulatto produce a *Sambo;* a black and a sambo a *Mungroo;* and a black and a mungroo is again completely black. But, in this case, the disturbance in the intellectual qualities is not again obliterated; it remains, to a considerable extent, of a more developed character than in a true Negro of unmixed origin. A mulatto, however, and a white generate a *Quartroon;* a quartroon and a white a *Mestie;* and a mestie and a white a complete white, having already, before the emancipation of the slaves in all our colonies, the legal rights of a white man of pure blood. Yet this class of persons still, in general, have black and curly hair; the nails on the fingers remain darker

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and ill-shaped; the feet are indifferently formed; and in their propensities much of the Negro origin continues to be traced. The Spaniards carry their distinctions to a seventh generation.

As the early history of the real Ethiopic nations is better known by means of the connection and hybridal descent they drew from the Caucasian races, we shall enter into more detail respecting their primæval filiations and migratory movements, when treating of the bearded tribes which first invaded India, and pursued, subdued, and absorbed the Negro population in south-eastern and south-western Asia, and northern Africa; an inquiry that can be followed out by certain geographical necessities, and by a right appreciation of many ancient mythic tales, notwithstanding that historical data were few and scanty.*

THE MALAY SUB-TYPICAL STEM.

Pursuing our course of investigation onwards towards the east, we find from a commencement somewhere on the gorges of the Brahmaputra, where that mighty stream turns towards the Ganges, an intermediate form of Man; one which, in a most remote period, was perhaps seated further to the north, about the sources of the great rivers which rise to the eastward

* Our personal observations on the Negro races, it is proper to mention, commenced in 1797, on the coast of Africa. They were continued, on both portions of the American continent, and in the West Indies, to 1807; during which period the slave trade remained in activity, and new Negroes, as they were termed, coming from different nations, could be examined, and their characteristics compared at most of the tropical seaports. The distinctive characters then possessed by them are now confused or obliterated by commixture of the different races, by education, and other changes of circumstances in the western hemisphere, and are no longer accessible on the coast of Africa. Hence, several remarks above made cannot now be entirely verified in any quarter. From what is here stated, it follows that the observations, more or less carefully made, extended over hundreds, belonging to very different tribes of western and central Africa, exclusive of North and South American, and West Indian colonial-born Negroes.

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of that stream. This stem now extends across the great peninsula of Indo-China, or has been propelled, by the pressure of genuine Mongolic races and mixed Indo tribes, not only to the extreme south of the peninsula, but driven onwards, beyond sea, to the islands of Australasia, to Madagascar, the archipelagos of the Pacific; and, it would seem, even to South America, before that continent was visited by the great migrations which came down the coast by the west of the Cordilleras. Conquered on the mainland of Asia, tribes of Malays, no doubt, reached the peninsula of Malacca at a remote period, but not before Java and Sumatra, Borneo and Celebes were detached from it; for notwithstanding that the deep channels, extant in their present waters, soundings and shoals, spreading even to the vicinity of Australia and New Guinea,* indicate the comparatively recent period when a great disruption of the land occurred in those latitudes, or the present conditions of the coasts were completed, still the presence of a more ancient or a more purely typical race, on the centre and on the west coast of the two first-mentioned islands, seems to prove that these were anterior, and the Malays only the second, or more probably the third source of the present population.

Preceding the arrival of the Malays, there was already extant, as the scattered fragments of the former population prove, the Oriental Negro stock; both on the continent and in the islands; and coëval with the first-mentioned tribes, the black Hindoo mixed Caucasian stem seems likewise to have been urged to the same coasts. Thus, the adulteration of the woolly-haired stock was effected in two directions, and the Malay stem, apparently resulting from the union of Caucasian with Mongolic tribes, caused that great variety of feature, complexion, and form, which it is known to possess, without therefore obliterating the perceptible sub-typical general resemblance which constitutes the characteristic marks of the whole race. If the Malays were a real typical stock, they would likewise possess

* Earl's Report in Journal of Geographical Sciences.

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a nucleus, or centre of existence, exclusively adapted for their permanent abode, whereas the contrary is clearly shown, by the presence of unadulterated races, and mixed tribes of the other two stocks, in both conditions suited to the same geographical region. This circumstance likewise indicates the probability of a great atmospheric change in relation to man, after a diluvian cataclysis, if it be admitted that this equatorial vicinity was once the real Nigritia of the woolly-haired type. Now, as it is evident the centre of development belonging to this type is at present in the tropical regions of Africa, and, as was before shown, that there are indications of a third being in preparation, under the same latitudes in South America, while the Oriental is gradually disappearing, it might be asked, whether there is not here the indication of a submerged continent, and another instance of that progressive migratory movement from the east to the west, or expansion and decay, ordained to be the fate of the great human typical stocks, and impelled by laws whose operation may be perceived without affording the means of tracing their causes beyond probable assumptions? Yet this physical procession over the earth by longitudes may not be without ultimate connection with that intellectual march of Man by latitudes, which, while departing from the temperate regions of our northern hemisphere, and arriving at the extremity of the habitable south, appears to repeat, on a greater, the workings of civilization which it commenced on a less scale in Europe, and thus to be evolving the mysterious problem of human fusion into one great family, led by one religious system, and trained to the sciences and literature of Europe.

As the Malays are nowhere expansively homogeneous, and in most places only tenants of coasts or parts of islands, varied marks of national adulteration are constantly perceptible. In general, however, their distinctive characters are marked by a comparatively small head, measuring, in the capacity of the skull, according to Dr. Morton, from sixty-four to eighty-nine

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cubic nches; a diversity in itself sufficient to demonstrate the mixed nature of their origin. The dome is high and rounded, with a low forehead; the face is flat and broad; the nose short, expanded at the wings; the mouth wide, with projecting upper jaws, and teeth resembling Negroes; the skin varying in color from clear brown to dark clove; the auditory aperture elevated, and consequently with a depressed forehead,—nearly as much so as in the woolly-haired type, but commonly distinguished by prominent ridges of the orbits overhanging the eyes; and we have seen a light brown, so-called, Papua girl, from one of the South Sea cannibal islands,* whose forehead had the lengthened form assumed to be peculiar to the American races. In the more typical tribes, the Malay's hair is coarse, lank and shining, like the Chinese; more aberrant, it becomes undulating and bushy, till, in still more adulterated races, it rises in the high curly mops which attest the intermixture of blood to be not less than half with woolly-haired families. This condition, however, most frequently advances the physical improvement of the possessors, and even the intellectual, when there is an additional innervation from a Caucasian source. The beard is often plucked out, generally scanty in the purer hybridism of the Malay composition, nor does it increase to the full honors of a well furnished fringe, up to the ears, unless there are again other indications of a Caucasian infusion. In that case, considerable stature is likewise not unfrequent; while, without the exciting cause just mentioned, a lank spare structure is the more usual, and the lower extremities are often somewhat deficient and short among the tribes addicted to marine lives. In moral capacity, the Malay races are inferior to the Mongolic, yet they exhibit, like them, intellectual vitality, great bodily activity, and considerable manual dexterity, as well as enterprise.

The temperament of true Malays is treacherous, the disposition ferocious, implacable, and the nervous system compatible with a kind of insensibility to bodily pain; hence, fits of

* Fr·n Tikienitri, a sandal wood island.

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ungovernable passion are always breaking forth in acts of indiscriminate murder, brought on by an abuse of ardent spirits, opium, and bang (smoking hemp). These occur so frequently among them, that in most European settlements, where this race is apt to congregate, particular police regulations and precautions are taken to obviate the greatest mischief; and it is not unusual to kill the maniac on the instant, as the only effectual preventive, since instances are recorded, where they have run up the spear that had transfixed them, and thus have sabred the spearman. This frenzy is commonly known by the name of *Muck*, *Mook*, *Mengamok*, in Sumatra, and *Wude* in India. To the same insensibility may be ascribed their ferocious, unyielding spirit in battle. They fight to the last gasp, never ask, and scarcely will accept quarter, nor profess thanks for mercy and the cure of their wounds.

The great affluence of Arab merchants and fanatics has converted the more polished Australasian tribes of Malays to Islam; the others are still Pagans of very different creeds, generally not resting upon any reasonable system; but Christianity is now spreading rapidly, through the zeal of missionaries, in the Polynesian islands, where, however, the Caucasian stock is more deeply mixed up in the composition of the nations, than in the great islands nearer the Asiatic shore.

All, however, record, in somewhat similar forms, a great diluvian catastrophe, have the same notions about the Makeri, or Dragon Serpent, a dragon-fish god assailing the moon, the crescent boat during eclipses; notions alike remembered in Central Africa, Peru, China and Ceylon, as well as in Borneo and Sumatra. They are essentially the same as the Indian legends of Vishnou, the Tahtar Nataghi, can be traced in the Scandinavian and other heathen mythologies of Europe and North America, being all distorted versions of the scriptural record in Genesis.

The languages of Malay nations, influenced by the various causes before noticed, and even by the contact of antique de-

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tached tribes, whose original affinity cannot now be traced, have produced great differences of opinion among ethnologists, as regards their classification; the learned William von Humboldt vainly claiming a unity of origin from the identity of the dialects spoken by a great proportion of the Polynesians, whom he and others regard as Malays. But, although we do not mean to deny a pervading intermixture of Malay blood in the composition of these tribes, still, as they vary, from absolutely Oriental Negroes, to nations having most striking characteristics of true Caucasians, the sole test of language, even if it were beyond dispute, is scarcely of sufficient weight to determine the whole question. It should be remembered that all the Malay dialects abound in Sanscrit words, which, be they borrowed from the tongues of the present Indo-China, or from the Telinga of the peninsula, are still evidence of a prevailing Caucasian admixture. Indo-China, the primæval abode of the Malays, bears Sanscrit names in every locality, whereas the Polynesian languages are without these characteristics in the words and grammatical structure. There are, moreover, monuments of Man's presence in many islands, from the Ladrones, in the Chinese seas, and Tinian, to Java, the Marquesas, Easter and Pitcairn Islands, monuments, not the work of the present existing nations, but raised at so remote a period, that all memory of the facts connected with them is departed even from mythical tales; yet they are constructed upon principles positively akin to Caucasian reasoning and Caucasian skill. Tribes of this type have left strong evidence of their ancient prevalence in the present mop-headed Figees, the brown curly-haired Marquesans, the dark-haired Hawaiians, and the variously featured New Zealanders, in all of which, though the masses of population indicate mixtures of lower origin, the chiefs point to the true Caucasian descent, in their whole external conformation, and still more in the intellectual qualities they possess. It is from this high order of ancestors, it appears most probable, that the pyramidal Morais, and other monuments,

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have been derived; for in the Malay peninsula, and where that stem has resided the longest, all the religious structures they acknowledge are bell-shaped, notoriously made of straw, rushes, mats, and poles; or, at most, they are of a Mongolic character, built with wood and mortar. Now, if we compare the Egyptian pyramids, the ruins of the supposed temples of Belus or tower of Babylon, and of Baradan in Persia, it will be found that one of them certainly had four towers, and, from the shape of the ruins, it had also a projection or propylon, characteristics which mostly occur again, and with the same cardinal aspects, as the great Morai of Suka, in Java, of Temurri, at Poppara; that at Atte Hura, and the base of the Fiatookas, like the Mooau at Tonga, and others in Polynesia; there are occasionally similarly constructed successive terraces, forming pyramidal elevations in the Marquesas and elsewhere, and these are again repeated in America, with exactly the same forms — one of these at Cholula, exceeding in area, and in cubic quantity of artificial accumulation, both the great tower of Belus, and the great pyramid of Cheops, taken together.* The forms of all these structures indicate a common religious system, more ancient than the extant idolatries; they may be claimed by a solar theism, distinct from the subsequent elaborate astronomical religions, but containing the basis of what has since been ascribed to Foh and Budha, which both Mongolic and Eastern Caucasians have long revered on the continent, and in the Asiatic Archipelago.

The Malay form, whether composed of two normal types, or of three, in various quantities of admixture, can be traced to Ceylon, where the blowpipe, the outrigger canoe, and other peculiar customs and words, give evidence that it visited at least the southern portion of the island. In the same manner,

* The base is square, and covers forty-four acres, the upper platform is somewhat more than one acre. The elevation at present is 177 feet; but this is partially diminished by the ruinous state of the lowest platform, and is exclusive of the temple which adorns the summit.

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and by like evidence, they are found to be a component part of the populations in North Australia, Polynesia, and probably in the eastern portions of South America, where the blowpipe is likewise in use, and a variety of practices, customs, opinions, weapons, and industrial arts; feather mantles and caps, tasselled swords and war-clubs, support the opinion of a community of origin, which is still further substantiated by legends and traditions.

The Malays, as before hinted, do not extend far into the interior of the east coast of Sumatra; the local tribes belong to the Orangulu, extending thence to the Rejang Islands; apparently they originate from a mixture of the Negro type with aberrant Caucasians, or Indo-Chinese, having the slender points, pale yellow color, and even the practice of allowing the nails to grow, of a Mongolic character, though they crush the nose and draw out the ears, in order to look more like Papuas. In Java, the Malay stem is still less predominant; for the oldest population was a race of Negro cannibals, termed Gunos, who were assailed and driven into the mountain fastnesses by a nautical people, the real Javanese, under the command of their legendary hero, Passara. Now this name, as well as Javana, i. e., mixed, a mixed people, are both of Sanscrit origin, and show that the invaders were Indo-Caucasians, with perhaps only a mixture of Mongolic, that is, Malay blood; the oldest religious edifices are of Indian character; and from names, such as Pen-y-gawa for a chief; Kralon, a palace; Sasakadom, a hall or temple, might indicate a branch of Pandoo wanderers, Gomerians, allied to the Pelasgian and Celtic tribes of the west, — a conjecture further strengthened by the Morai pyramid of Suka before mentioned. The Javanese appear to have sent colonists to Madagascar, since known by the name of Jacalvas, who similarly waged war against the cannibal Anachimous, and were for many ages noted marine pirates, distinct from the Joasmees, who are of Arabian origin.

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Further east, in the island of Borneo, where true Malays have the ascendency, but only reside on the coasts, there is another people distinct from them, partly sedentary and in part exclusively nautical. These are the Orang Darrah and Orang Laut, men of the soil and men of the sea, one maintaining an unequal struggle against the Malays, and the other pirates from birth, and always residing on board their proas; freebooters in every sense, and ready to aid in the oppression of their kindred race inhabiting the interior. Both are nationally denominated Dyaks, are fairer than the Malays, and most likely allied to the Joasmees before noticed. They are of the Horafoura stem, also marine adventurers, who, having for ages frequented the north coast of New Holland, have certainly caused a further hybridism among the Papuas of that region, and are themselves the most mixed branch of Indo-Caucasians in Australasia, with a language and religious notions originally unconnected with any Malay source. The tribes of Borneo, here enumerated, are evidently older possessors of the soil than the Malays, and the most ancient in these seas excepting the Eastern Negroes, who may be regarded as absorbed by them in this great island, since none of the purely woolly-haired stock are now known to remain in the country.

Celebes is principally inhabited by the Boun, Bouginee, Buges, or Bugesses, of which one nation is called the Macassar, and the whole appear to be of the same stem as the Horafouras. Here they are again fairer than the Malays, with very long black hair, and soft silky beards and whiskers. Their original language, more allied to southern dialects of India, with the admixture of Sanscrit, is now much corrupted by the Malayan. The women of this island are the handsomest and most polished of the eastern seas, setting the fashions which other nations strive to imitate; and a more advanced civilization is shown in several articles of their manufacture, which are carried in native vessels as far as Fort Cornwallis. The male population are mercantile resolute sea-

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men, and the reputation they possess for valor has caused the name of Macassar to be regarded as equivalent to warrior. It may be questioned, whether the possession of some parts of Malacca, near Salengore, and Point Romania, at no great distance from remains of the Samang expelled Oriental Negroes, is not also an indication that the Buges tribe came from this portion of the continent.

The same observation is equally applicable to the Magindanao, who are also Horafouras, that reached the island when the Philippines were still wholly possessed by Papuas or Bangel-bangel savages. Such, again, are the Bissayans of Luçon; the races found onwards to Tywan or Formosa, and the Ladrones, who are all possessed of Hindoo tokens of affinity, mixed with evidence of an original consanguinity with the Japanese, particularly to the eastward; and, according as either preponderates, adopting a Caucasian or a Mongolic ratiocination: these mental qualifications are evinced in the readiness many have shown to abandon their ancient idolatry; and the preference they give to the law of Mohammed, rather than to the Christian, is in consequence of the former having had merely teachers to spread the new doctrines, while the latter endeavored to make proselytes by means of Portuguese and Spanish conquerors. Of all these tribes, the Pagans were, or still are, cannibals; the others have certain forms of governments established, and often written laws, in alphabets of their own construction, having scarcely any retrospect to Chinese ideas; and they were so little in communication with pure Mongols, that it was not until after the arrival of European navigators, that bodies of colonists, from the celestial empire, made their appearance in Luçon and Java. Even in Formosa the population was alien, until refugee emigrants, escaping from Mantchou conquest, reached the island in the seventeenth century, when the Dutch were already in possession of it.

But notwithstanding this historical fact, Caucasians from Eastern China, Indo-Arabs from Western Asia, and unnamed

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tribes from the Malay peninsula, seamen from choice or necessity, had long before laid the basis of the resident populations, being in a more or less state of degradation by Oriental Negro interunions. They formed the numerous pirate communities, Orang Laut, Sea Gypsies, Jacalvas in Madagascar, Idaan, Marootzie, Sea Dyaks in Celebes, Biagoos or Bragus in Borneo, some partially sedentary, others entirely dwellers on the seas, shifting their stations with the monsoon, so as to be always under the lee of land; and, among other superstitions, like western Hindoos, sending a model canoe, cursed and loaded with the sins of the people, far away on the ocean. Their legends and romances, most particularly in Sumatra and Java, are of Hindoo origin; and vast temples of Indian divinities, such as that of Boro-budor in Java, point to a Brahminical religious system prevailing there before the Arabian innovations of Islam came among them. From families of these tribes, rather than from pure Malays, the majority of the Polynesian islanders are composed; their chiefs still bearing the marks of higher Caucasian castes than the vulgar, who were, from the first, servants and rowers; and both together are the descendants of wanderers, blown off by untoward monsoons, in like manner as are still frequently witnessed, in a similar condition, on most islands of the South Seas.

While the European navigator and conqueror is invariably held to be an enemy, nothing but ancient amicable reminiscences can account for the peaceful passage of Chinese and Japanese traders through most, if not all, the seas infested by the vast pirate fleets before mentioned. A tacit law of common affinity binds the inhabitants of the South Seas, even to the most remote islands, sufficiently to receive among them the shipwrecked or storm-driven wanderer on equal terms, excepting where the resident population is of purer Papua stock; for these regard all others as conquerors, and usually treat them in the light of victims.

The South Sea islanders, beside feature, hair, and personal

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conformation, show their consanguinity with Caucasians most distinctly in the structure of their minds. While other savages and barbarians are incurious, merely satisfied with childish surprise, or value only the superior means of destruction possessed by Europeans; they alone, though so near the savage state when first visited by our navigators, were struck with the wonders of civilization in a right spirit. No other tribe of Man was so desirous of learning the useful, the peaceful, and ornamental arts of Europe. Some examples may be quoted of other races listening with respect to the doctrines of religion, and becoming imperfect proselytes; but the Polynesians, even when they were still cannibals, embraced Christianity with ardor, and now hold it with an intelligent sincerity, that enables converts of a late date to become messengers of peace to other tribes, and open the path for more educated teachers. They alone have shown examples of chiefs, quitting the pleasures and prejudices of local consideration, who, for the pure love of benefiting their native land, have entered as common sailors on board British ships, that they might visit England, see, learn, and adopt improvements in ship-building, navigation, and agriculture; procure seeds of triticum and leguminous plants, and advance civilization. Others used the plenitude of power to encourage the same object, to learn the alphabet, to read, write and cipher; they set up a printing-press, and had the honor to throw off the first printed words of the native language. They have shown, when at war with the white men of Europe, instances of romantic forbearance and valor, under impressions of unjustly suffering a public wrong. All these seeds of human progress have developed in the first generation, since they have become acquainted with better things, and are going on notwithstanding the evil examples but too commonly held out to them. If, therefore, Frederick Cuvier, when descanting on the trifling external characters of some mammalia, nearly allied in structure, be right to recommend rigorous researches in their relative *moral instincts* and *intelli-*

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gence, in order, by their aid, to establish a primæval unity of a genus, how much more important must the same method prove in researches after the aboriginal unity of a sub-typical stem of Man. If there were no such other indications as have already been noticed, by these facts alone we may with confidence appeal to the presence of a considerable portion of Caucasian blood, in the composition of the master race of the Polynesian islands. It is undeniably conspicuous in some of the groups, less so in others, and evident in despite of linguistic considerations, which, to say the least, are still not sufficiently mature to admit the generalizing conclusions of Humboldt. The Maori tongue of New Zealand is an example, which, while it shows the presence of a Semitic element in the composition, is but feebly tinged with Malay; perhaps, by reason of the great majority of its component words being the offspring of Papua dialects, the basis of the population being originally of Eastern Negro derivation, only by degrees amalgamated or destroyed. Whence these two races came, can now be only conjectured from the reminiscences of the people, that two immigrations originally took place on these islands; they still name the localities, and assert one to have come from the east and the other from the west. To individuals or families of the earliest Polynesian wanderers, the introduction of at least one system of doctrine, in South America, may be ascribed; and to another, of Caucaso-Mongolians, a second, which appears to have reached the north-west coast, and finally to have established itself on the plateau of Anahuac. These considerations lead us to the New Continent, before the two historical architypical stocks of the Old can be traced out without interruption.

THE AMERICAN SUB-TYPICAL STEM.

Though researches on the primitive population of America may be deemed unphilosophical, because the conclusions are

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not amenable to positive proofs, yet the inquiry is not without profit; and surely, so long as physiologists continue to admit the maxim, that mankind consists of one species only, it must involve, as a consequence, the necessity of migration, in order to people the earth in all its habitable portions; or it demands a plural creation of the single species, sufficiently diversified to be adapted to the varieties of climate and circumstances wherein they are found to exist; in which case, the term "*species*" assumes a different acceptation, and confounds the notions hitherto attached to it, notwithstanding that no positive definition has been undeniably established to guide the naturalist.

Always regarding the flat-headed Paltas, Aturians, or primæval race of South America, as anomalous, though evidently mixed with tribes of a more marked origin, and admitting that of them some small clans, such as the so-called Frog Indians, with probably others, are still in being about the valleys on the east side of the Cordilleras, we cannot but remark, considering the antiquity of the deposits and extensive range where their bones are discovered, (from Brazil to the west coast of America,) that the stock is fast passing away. It has been supplanted for ages, by the Guarany and other nations in Brazil, whose Malay aspect countenances the supposition of their original arrival in the New World somewhere about the Californian coast, whither they seem to have transported, along with legends already pointed out, the practices of boring the septum of the nostrils, the lobes of the ears, and even the lips and cheek-bones, for the purpose of inserting therein bits of bone, of shells, wood, feather, or leaves.* These, and other fashions before described, they have in common with many islanders of the South Seas and coasts of the Northern Pacific;

* Dr. Burchell, Prince Maximilian of Wied, and many other travellers, entertain similar ideas with ourselves. The present physiologists who draw other inferences, are not always reconcilable to each other when their arguments are generalized.

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and, if they are not of foreign origin, they most assuredly are startling coincidences. But that these, and nearly all other invaders of the west coast, are intermixed with the flat-headed aboriginals, is shown in the artificial means employed by the former to obtain the resemblance of the flat-head conformation; inflicting for this purpose daily torture upon their infants, till the desired effect is produced.

Torture, self-imposed, is indeed a part of the education of most American tribes, and the habit is sufficiently indicative of the small irritability of fibre they possess, in common with the Mongolic and Indo-Papua races of Asia.

If the typical Flatheads were not a distinct species of Man, they were, at least, the oldest and first wanderers that reached the American continent.* They appear to have possessed in Peru, elements of social progress before strangers came among them, provided always that the Titicaca and other remains of this type represent the Peruvian people before the Incas obtained the sway.† The question would certainly be more doubtful, if the imitation of their cranial form had not been adopted by races of strangers in both Americas, and even by the aquiline-nosed hero tribes, whose portraits still adorn the ruined temples of Yucatan, where they represent giant divini-

*Natives of scattered southern islands, such as the Malecolese, and sallow Papua-Malays of some sandal-wood islands, all distinctly marked with very elevated frontal bones, seem to countenance the probability that there were men of this form in Polynesia, but then their frontal does not appear depressed.

† There is a statement somewhere, that the Incas permitted one or more villages of Flatheads, taken during a war of conquest to the east of the Andes, to settle near the capital; but this seems to be at variance with Dr. Tschudi's observations. It may be right to repeat here, that writers speak often in very indefinite terms of American flat-headed tribes, there being certainly three very different in form; the first, those whose crania are naturally depressed; the second, with the occiput obliquely flattened in a vertical manner (this belongs also to Peru, and is seen on the Yucatan images); the third is the North American, where both the frontal and occiput are pressed down, bulging out laterally. *See Plate I.*

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ties in the character of conquerors. Such homage was never paid by conquerors to the vanquished, unless these last were in possession of indisputable superiority in arts, or in the forms of their institutions, and then the consequence is natural. We see the proofs of it in the Turkish imitations of the Byzantines, and in the Mongolic of the Chinese.

The foot of Man has pressed many a soil which later travellers assume was never trodden before them. Navigating antiquity knew many geographical facts that scholastic prejudice neglected for the sake of grammatical pursuits. From King Alfred's writings we know the voyage of Othere towards the North Pole; and that even from England navigators visited distant seas in the ninth century. Dicuil's incidental notice of Iceland, in the beginning of the same age, was not observed till of late years. The Scandinavian discovery of Greenland was long doubted; though it is now proved that these hardy seamen pushed their discovery along the coasts of America, beyond the equator, to Brazil. We have discredited, with equal resoluteness, the discovery of Newfoundland by the brothers Zeni, Venetian navigators, seventy years before the voyage of Columbus, according to Cardinal Zurla. Documents published at Copenhagen prove the same coast to have been repeatedly visited by the Northmen from the years 980 and 1000 to 1380; and the Biscayen whalers seem to have equally known this region by an accidental south-easterly storm, which drove them from their fishing station off the Irish shores, in the reign of King Henry VI., that is, about 1450; and all this incredulity and apathy, when the names of Brazil, of Antillia, and the country known as Newfoundland, were already noted, though not correctly laid down, in the chart of Andrea Bianca, bearing date 1436, still in the library of St. Marc at Venice. Columbus himself found the rudder of a ship cast on the beach at Guadaloupe. This would be a natural consequence of any ship being disabled, and driven to the south-west, till it falls in with the trade winds, which, perpetu-

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ally blowing in the same direction with the currents westward, drive all floating bodies onwards to the coast of the New World.* What, therefore, the ancients, and more particularly the Phœnicians and Carthaginians, nay, the Celtæ may have done, beyond the Atlantic, is not even entirely a conjectural question, since there are still extant elements of a Semitic dialect in certain tribes of South America, and of Celtic in the north; and without the arrival of some mariners from the coasts of the Old Continent, the legend of Quelsalcoatle, a Toltecan legislator, with Budhistic, perhaps Christian dogmas, could not have been framed prior to the arrival of the Spaniard; yet Cortez was told that he returned to the east; and hence arose that general belief, that beings of a superior nature would again visit the west from their abode beyond the broad ocean, which was fully established in Anahuac.† But, stimulated by the discoveries of the Portuguese, the power and commercial vigilance of Spain successfully blinded for a time the scholastic apathy of the rest of Europe, and persuaded political ignorance that it was Columbus who first made the discovery of America. Thus, every probability supports the opinion, that men from Europe or Western Africa had reached the New World long before the assumed discovery of Columbus; yet it does not follow that any who were carried to the west by the trade winds ever returned. The Scandinavians, however, reached the coast at a high latitude, where the north-western winds prevail in autumn, and the marine current sets towards Europe.

* See Edinburgh New Philosophical Journal, No. 75, October, Jan., 1845, where this question is treated more at length, in a notice of the Travels of Prince Maximilian of Wied.

† If the painted chronology of the Mexicans could be relied on, the legislator priest came with the Toltecs to the plateau of Anahuac, which would then be in A. D. 648. It was asserted, that he began the pyramid of Cholula. There was another legislator priest, named Votan, who arrived much earlier in Mexico, but then the chronology now admitted must be wrong. See Don Antonio del Rio. Teatro critico Americano, by F. Cabrera.

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Hence they returned to Iceland or to Norway with little uncertainty.

Disregarding for a moment the probabilities already mentioned of the subsidence of a great extent of land in the Pacific Ocean, it is evident that from the East of Asia and the Polynesian Islands, the principal immigrations of mankind have taken place. Of these the Pitcairn and Easter Islands, nearest to the coast of South America, are remarkable for the colossal idols of stone, which have been observed in both, though the first was for a time believed never to have been inhabited before the arrival of the mutineers of the Bounty, and the other is now in the possession of a race who do not claim the fabrication of them. It may be observed, in confirmation of the removal of Polynesians by war, by design, or by stress of weather, to the eastward, that to the 20th degree of south latitude, and to more than 200 leagues at sea, a south-west and south cold wind blows, with a current coming from the pole, and, setting towards the south-west coast, drives floating bodies on the shores of Chili. Easter Island, the farthest eastward of all the Polynesian groups containing inhabitants, is as remote from them as from the longitude where these winds and currents prevail; hence the casual arrival of Polynesian wanderers could scarcely fail to reach the coast of Chili; and subsequently they were, it is obvious, driven eastward, to commix with the Brazilian tribes, and southward, to form the race of Araucas; others, perhaps from the Sandwich Islands, are the progenitors of the tribes on the Sacramento river, on the north-west coast, where the women still wear the Maro, and the men have short undulating hair, with beard and whiskers very soft and silky.

That another immigration was continuous for ages from the east of Asia, is sufficiently indicated by the pressure of nations, so far as it is known in America, being always from the north-west coasts, eastward and southward, to the beginning of the thirteenth century. It appears to have taken place mostly by the

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Aleu an Islands, and southward, to the Columbia and California. Here, also, the facilities for this purpose were mostly furnished by nature, and the propelling cause, when landed, is likewise detected, by the country supplying little food between the Rocky Mountains and the sea. The Northern Pacific was navigated by Japanese tribes in ancient times, and is so even now, although, since the appearance of European navigators, the trade has been discontinued, if not absolutely forbidden; yet, within these few years, a British vessel boarded a Japanese junk within two days' sail of the California coast, and found that it had drifted, without human care, for many months, and that, of forty of the ship's company, only seven persons survived. This vessel, having lost its course, was carried by the prevailing winds and currents of that portion of the Pacific to the eastward, and was in all probability wrecked on the American coast, after the living people had been taken out of her and saved.*

Here then, we have likewise, on the east side, instances, not of facilities, but of necessary consequences, of vessels reaching the west coast, so soon as they are placed within the influence of the winds and currents which prevail, either constantly or at certain periods of the year, in the latitudes above indicated; nor is there a want of proof that canoes, with a proportion of Polynesians, have survived the hardships of four months at sea, nor that they have been found at eight hundred leagues' distance from their homes; for both facts are noticed by our navigators in the tropical Pacific; and by the Aleutians, a continuous chain of islands passing from one quarter of the globe to the other, a route is established, as if they were intended for an easy and speedy method of crossing between them. But though timber for canoes and sea-rafts is abundant, both on the north and south points of departure, there is scarcely any near

* They were carried to the Sandwich Islands, and thence, by the first opportunity, sent on to their native land.

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the western coast of America to keep up marine habits, nor are there navigable rivers without bars, nor ports with safe places for landing, but mostly everywhere an open, barren, sandy, or rocky shore, beaten by a heavy surf.* Hence, on this side of the Americas, if arrivals were not frequent, departures were impossible, excepting in the more northern latitudes; and that these had been crossed and recrossed may be presumed, even in case the assertion of Chinese scholars, that America was known by the name of Fu-sang, and mentioned in the great annals of the celestial empire, down to the fifth century of our era, was a mistake.† The absence of Chinese forms of speech on the American continent is not absolute, since the Othomi language, spoken on the north of the valley of Mexico, is monosyllabic. In Europe, we know the existing eastern tongues of the Mongolic stock so imperfectly, that the work of Dr. Pfitzmayer on the Japanese, though not directed towards the spoken dialects of the more remote islands of the empire, yet shows that the learned had, until lately, a very slight acquaintance with it, and often mistook written Chinese for the Niphon language.‡ Even the learned Chinese is more a lettered than a nationally spoken vehicle of thought; and in both the empires, the written is partly different from the spoken tongues, though the characters, being symbols instead of alphabetical

* The surf in many places is as high and violent as at Madras, and there being little wood procurable on the coast, the natives invented great floats of inflated seal skins, which are still in use. They had formerly catamarans, like those on the Coromandel coast. Models of these are frequently found, with a double-bladed paddle, in the graves of the aboriginal inhabitants; but, from California to Peru, rafts, balzas, or janjadas, served, capable of carrying great loads with safety, sailing with uncommon speed. See Charnock's Marine Architecture, vol. i., p. 13. Balza wood is a very light kind of palm.

† See C. Frederick Neumann and De Guines, though Klaproth supposes Niphon or Japan is meant; Japan, however, bears a different name or names in the same annals.

‡ A Dictionary in the so-called Tirokana characters, containing 40,000 words, is in preparation by Dr. Pfitzmayer, at Vienna.

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signs, can be interpreted by words in several languages, differing in every other respect from each other. Thus, there cannot be a reliance on arguments drawn from the difference of American languages from the Mongolic; they vary among the distinct families of North America, as much as from any Tahtar tongue; and there exist sufficient coincidences and similarities in the sounds of words, as well as in the opinions, manners and practices of the natives, resembling those of Eastern Asia, when taken with the other arguments already produced, as to overthrow the whole fabric of an exclusively American aboriginal species or form of man, constituting the races of that continent, always excepting the Flathead type, which, it must be owned, constitutes an ingredient very generally diffused through the native tribes, but not their principal portion. Even the most determined advocates of the original unity of the races reject the Esquimaux, who are admitted to be of an Asiatic stock, when they should also reflect, that, in the northern portion, several tribes of the present Indians, such as the Iroquois, confess that they dwelt themselves in the high north before they migrated to their present habitation; while the Tschutski of Eastern Asia are assumed to be of the American stem; accommodating the conclusion to a reversed order of migration, which, with singular inconsistency, admits the practicability, on hypothetical grounds, in favor of utter savages, what it refuses to the ancient and middle ages of great and organized nations, who were navigators both on the east and west of the New World, and for times when facilities for that purpose were apparently more at hand than in later ages; for, by strangely reversing the natural order of human dispersion, another and probably not inconsiderable transition from Asia is disregarded; one which, being taken in connection with the more immediate facility, by an entire, or almost an entire, communication by land, when Behring's Straits had not yet greatly widened, obviated all serious difficulty. At that period not only Esquimaux, but Finnic, and the north-eastern Caucasian races, here-

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after to be mentioned, had no doubt inducements which brought the parent families of the high-nosed and other nations of North America to that continent; and the influence of rigorous winter seasons must have gradually induced them to seek milder latitudes, where more plentiful means of subsistence were accessible, in the same manner as the nations of northern Asia and Europe have and ever will continue to do when they have a chance of success. It is perhaps here that we must look for the sources of those multiplied evidences of Asiatic origin, shown by most, if not all, the American tribes, both those of the Mongolic or of the beardless stock, and of the true Caucasian; for, when the former of these had journeyed almost entirely southward, tribes of the latter appear to have occupied their abandoned localities, and, in a pure condition, or blended with such as remained behind, to have passed on across the isthmus, or the straits, to the American shore, whither they, in their turn, were followed by the Esquimaux or Skrelings, who, it is evident, came last, since their descendants have never been able to penetrate more to the south than the shores of Nootka.

All these occurrences coincide with the known progress of the Caucasian nations to western Asia and to Europe. They account for the presence of similar inscriptions in Siberia and in America, and for many of the facts of the peopling of the new continent at a later period than the west of the Old World; they admit, without violence, the usual immigrations of distressed marine wanderers, whether they were of Malay or of Phœnician origin, and even of African as well as Oriental Negroes; such as the colony of the former found at Cariquel, near the Isthmus of Darien, or the now exterminated Charruans* of the Guarani, or, like the latter, found in a mixed state on the shores of California. This view gives sufficient time for the local intermixture of the races with the flat-headed

* These may be the same Sir Walter Raleigh mentions as having lank hair in Guiana, where he observed them.

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aboriginal, whose peaceful phlegmatic habits readily yielded to the turbulent activity of male adventurers, and accounts for the various other phenomena which attend the question under consideration.

In the successive struggles of nations, which must have ensued, for hunting grounds or for dominion, the more advanced nave evidently been obliged to yield to those from the north. Whether both originally came from the same quarter, or one had previously arrived by a marine route, the result was the same. The proofs are seen in the ruins of vast castral cities, and human tumuli, still extant in the United States; in the Maen Stones and Cromlehs of the more eastern regions;* in the pyramids and temples possessed by the successive nations of Mexico; and, if the singularly squared cone in the middle of a lake of Northern California be wholly or in part the work of Man, it may be a memorial of departure, or a mark of direction for other tribes, perhaps similar to the semi-artificial pile of Chehel Suton — that antique landmark of migration, and directing guide of carayans, situated on the edge of the western Gobi desert, almost midway between Pekin and Constantinople, or Serica and Byzantium. At all events, it would then point out the station which the builders of similar edifices in America once occupied in their earliest day, and confirm the conjecture that the Wapisians of Guiana, at least, are of those tribes, which, at a period long anterior to the march of the Ulmecks and Toltecs, nations of a kindred race, had passed over the plateau of Anahuac. Beside the monosyllabic Othomi language, there is a similar mode of connecting sounds into long strung words, pervading the American, Astec and Maya, approaching Finnic and Tahtar dialects; the syllables *Ac* or *Ak*, *Uk* and *Kuk*, often recur in the northern Indian tongues; and *Tla* and *Tle* in the Mexican; sounds which are again found in the speech of the Arctic nations of both continents. In addition to

* At North Salem, New York; at Winipignan river, on the Ohio, &c.

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these rude and simple characteristics of a mixed Tahtar and Finnic form of speech, there are Scythic words, that is, words of Sanscrit origin, which can scarcely be coincidences, and rather show that some tribes, perhaps of kindred Yuchi, passed over to the western continent. Again, Semitic words occur rather profusely in the Carib and Makusi dialects,* and striking coincidences of similarity between certain tribes of Australia and the Fuegians of the Straits of Magellan are pointed out by Captain Stokes, in his voyage of discovery lately published.

One, more, or all the nations of America had, besides, creeds, usages, and traditions, in common with stems of the Old Continent, and particularly with Asiatic tribes. Such, among others, were the diluvian legends and the celestial dragons' attempts to devour the moon during the appearance of an eclipse. Next, there still exists in the northern portion a basis of pure Deism, coinciding with the common belief of all the nations of high and northern Asia. It was ever independent of tribal and subordinate divinities, and admits of various forms, such as Shamanism, with its demonology, and the more moral system of Budhism; one being outwardly remarkable for sorcery, incantation, the magical drum, and rattles; the other for several religious monastic orders, for penances, self-

* Thus, in the Dakotah dialects, which convert M to W, the Teutonic *Mag*, large, becomes *Wah* and *Wak*, great, superior, master. *Wehrman*, warrior, is converted to *Werowanie*, a war chief, &c. *Sachem*, a priest chief, may be derived from the same root as *segher*, a priest, from *sagen*, to speak, and belong to the series with *gesach*, *schah*, &c., authority, right to speak, to command. *Hooloo* is holy, sacred; *min*, many, plural; *Hogh* or *Oug*, high, superior, &c. In other dialects we find *Eloa* to denote God; and, in the Carib, Makusi, &c., there are, among many other, *Tamoosi*, Phœnician, *Tammus*, for God; *Karbet* is the same as *Grabit*, a house; together with usages and opinions closely allied to those of the ancient nations of Syria. The Mexican words, *Atzlan*, *Tlapallan*, *Tenotitslan*, without radical meanings in the language, are readily convertible into very appropriate appellations in several Caucasian languages.

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mortification, and undying chief-priests, and both recurring in the New World; nay, tokens of what seems a Christian doctrine are detected in the worship of the cross, repeatedly found carved among the ruins of Palenque. There are, moreover, evidences of Hebrew lore in the metal plates dug out of the same ruins, where the serpent is represented twisted round a tree; and another, with a naked human figure, kneeling in the attitude of supplication, surrounded by huge monsters, among trees of a tropical forest.* What makes these representations still more remarkable, is, that though they belong to the high-nosed Toltecs, the mystical figure in distress has neither the features nor flat occiput of that people, nor the posture of prayer which belonged to the idolatrous nations of Anahuac. They had, it is true, a serpent or Naga worship, and believed that tutelary genii appeared to mortals in the animal forms assigned to constellations. But this very fact is again an indication that even the astronomical signs of Asia had passed over to them, for they were figured in astrological books which were employed for incantations by an Astecan order of priests. The medicine men, with their drums, are still perfect counterparts of Siberian Shamans, who perform their mummeries with a like instrument, similarly painted.

The nations of Anahuac were acquainted, like the Tahtars, with a great dragon standard; had, like the Thibetans, huge banner lances, such as are still planted before Lamaite temples and palaces; and there were ensign spears similar to those of ancient Bactria: one of these was the Shiemagun of the Chippeways, the other was the guiding sign of the Choctaws, during their great migration from the west. The Mexicans had some adorned with wings and feathers like the Huns

* The priesthood kneaded maize flour with blood, and baked it in the form of the god of war, then broke and gave it in morsels to the people, who partook with signs of humiliation! See Prescott's valuable History. Was this Budhism?

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and early Turks. The nations of the plateau of Mexico had all a practice of fixing several ensigns or banners, stuck in ferula, at the back of a warrior, like the earlier Chinese, or they attached them to their shields; which was likewise not unexampled in Asia. Symbolical devices, almost amounting to real heraldry, designating even at this time many tribes of North America, were thoroughly understood in Mexico, and are likewise well known to all the Tahtar nations of Asia. They had, it is asserted, the use of a peculiarly Chinese instrument, the well-known gong; but more likely it was a great drum, audible, according to Bernal Diaz, to the distance of two leagues; the same as the Nakara of Southern Asia. In common with Tahtar nations, nuptials were symbolized by the ceremony of tying the garments together of the two contracting parties; and, like them, there was only one lawful wife, though there might be a plurality of concubines. In very ancient graves, not far distant from Niagara, human debris have been detected, having with them a reversed shell of the whilk (Buccinum) exactly similar to the Shonk found in the tumuli of ancient Ceylon.*

Peru, with its Palta people, instinctively builders, has left ruins of huge walls, surpassing the Cyclopean and Pelasgian structures of the older continent in bulk, and superior to them in artistic skill. From the institutions, religious, humane and moral, the legislator of the Incas has rarely been considered by the learned to be of indigenous origin, but more generally as a Japanese or a Brahmin philosopher, who, if he were an Asiatic, certainly did not traverse the Pacific alone. Several nations in both parts of the continent, had, like the Oceanians of the South Sea, and of the north-east of Asia, a bone thrust through the cartilage of the nose; they had also swords with tassel handles, like the Malays, feather mantles, and decora-

* The fact was communicated to us by Captain Chapman, late Royal Engineers, who had examined both instances on the spot.

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tions like natives of the Sandwich and other Polynesian islands.

The progressing nations, and, in particular, among those of Anahuac, the Mexicans, were a bearded and hairy race, and, being in a state of greater civilization than other American tribes, they were in a condition of representing more circumstantially the tenor of their ancestral history. Accordingly, they had traditions, supported by hieroglyphical maps, which marked the stages of their ancient migration from the north to their arrival on the plateau of the Andes, where they founded Mexico in 1325 of our era, according to Clavigero. They had then already resided at Tula and its vicinity for above a century, gradually dislodging other tribes, who had successively pressed upon each other from the same quarter. These were chiefly the Acalhuans, Chichimecas and Toltecs, whose first arrival is referred to so early a time as the year 648; and even these were posterior to the Ulmecs: but the dates may not be safely relied upon; and the charts themselves, though still existing, at least in copies, cannot be deciphered with trustworthy precision. The point of primæval departure is, however, designated by the names of *Aztlan* (the Eden, or land of nourishment), and *Huehuetlapallan*, which has been interpreted, the bright abode of ancestors, a region which certainly lay in the north; and, when coupled with the departure, includes likewise the west. This region was certainly not the valley of the river Gila, in California, notwithstanding that a cognate language is still spoken there, and that ruins of magnitude attest there was anciently a people resident on the spot already in a progressive state of civilization. It is probable that this people were the Astecans, who may have resided on the locality until they had increased to a nation, and were forced to depart by pressure from behind; for sedentary nations do not abandon cities and temples but by force, or by the fear of foreign and unknown invaders, from whom they expect no mercy. It is a curious coincidence of time, that these great

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recorded migrations in America correspond sufficiently well with the same kind of migratory and invading wars in Asia, which precipitated the Yuchi from Chinese Tahtary westward, and brought the Hyatili or White Huns first to conquer Cabul and Bactria; being followed by true Mongolic nations till their hordes established themselves beyond the Danube and the Vistula. These are uncontrovertible signs of the great expansion which the beardless stock then made in north and eastern Asia; and may well account for clans of Caucasians, such as still have possession of sundry mountain chains in China, taking refuge towards America, by a route sufficiently near the Arctic Circle to give the north and west for a true point of their first abode on that continent. Followed, as all fugitive nations are, by their enemies, no doubt real Mongolians came after them; and both, in departing from eastern Asia, lost their horses and their nautical habits. Thus, these migrations of distinct types may be a cause of the intermediate character of the present Aleutian Islanders.*

With these facts before us, it is vain to assert that all American races, excepting the Esquimaux, have originally sprung from one stock; for many more coincidences could be enumerated; and while one like the last mentioned is admitted to be of the beardless type, of Ouralian or of Finnic origin, surely others could migrate in a similar direction, at earlier periods, when, in all probability, this passage was much more practicable; and, according to observations made by Biot, the climate less

* See Warden's Antiquités Americaines. Pennant's Arctic Zoology, Introduction; where many other customs, common to the Scythians, and to the North American nations, are enumerated. There is a Japanese map now in the British Museum, which marks islands in the straits of Behring, and notices the region by the name of *Ya-zue* (the kingdom of the dwarfs), that is, the diminutive Esquimaux. This map, presented by Kæmpfer to Sir Hans Sloane, is, therefore, of comparative antiquity, and shows Behring's Straits to have been known to the Mongolic stock long before Behring made the discovery, or Cook fixed the real position of the two coasts.

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severe than at present. More than twenty tribes of Indians, of the present territory of the United States and Canada, record their migration either from the north, or from beyond the Rocky Mountains. Many of these nations have therefore occupied a high northern latitude on the west coast; regions now mostly in the hands of Esquimaux tribes, who, as they have replaced them, have evidently arrived after their departure: the former tribes, not emphatically fish-eaters, but hunters, when, from single families, or from a race mixed with the indigenous Flatheads, they had increased to tribes; and when in that little productive region, where game is rare, they could no longer remain stationary, must have sought subsistence in and beyond the mountain chain; for to the east only, with the exception of the valleys of California, could they find the Bison, the Elk, the white mountain Goat, the Ahzata, Argali, prong-horned Antelope, and the wapiti Stag. In pursuit of game, they must have come upon the sources and feeders of the great rivers that run to the south-east, and fall into the Gulf of Mexico or the Atlantic. They would naturally follow their course, or crossing the Ohio and Mississippi to richer woody regions beyond the Alleghanies, occupy the eastern provinces of the present United States and Canada. Other tribes of the west, probably immigrants of later periods, and possessed of higher attainments, even with a remnant of nautical means, descended between the islands and the coast, till they reached the rivers now significantly denominated de los Martires, and de los Piramides; and thence, crossing the Colorado, rested for some ages in the valley of the Gila.* Here they gradually multiplied, advanced in civilization, and raised those structural monuments which are still to be seen in their ruins; thence, in successive waves, ascending the plateau of the Andes, they made their appearance in Anahuac, to seize new and

* Surely these point out two or more of the Astecan halting places.

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perhaps better settlements; but, from their new position, eventually forsaking all acquaintance with navigation.

Thus are shown those successive proceedings of nations in the New World, which were counterparts of the well-known invasions of the northern tribes in the Old; both radiating from a common centre; surmounting obstacles of seas, deserts, swamps, forests, and mountain-chains; surviving mutual slaughters, victories and defeats, till they reach the utmost limits of the habitable earth. If now we inquire whether the nations of America attest, in their structure, the various origin here shown, or have a uniformity of characteristics, which many eminent physiologists, together with Dr. Morton, contend for, we shall find great evidence of a common type very generally, but not unexceptionably, pervading the nations in question. It is found chiefly in the great vertical prolongation of the frontal bone, though this distinction, we have before noticed, is not exclusively American: it varies in size, probably, according to the degree of intermixture different tribes have received — there being, besides, populations on the coasts of the sea of Okotsk, and even on Saghalin Island, similarly distinguished.* Many Japanese, particularly Bonzes of the lower classes of the nation, have the forehead remarkably depressed. In several portions of the New Continent, the oblique eyes, complexion, and other characters of Mongols occur, as among the Alikhoolis of Terra del Fuego; but the Chilenos have strikingly Hindoo features.

* It is externally apparent, in some abnormal tribes of the Polynesian islands, and exclusive of the Flathead Paltas, most conspicuous in peak-headed natives of Kotzebue's Sound, on the north-west coast, who, though they do not belong to the Esquimaux stem, are more like natives of the east coast of Asia; and if these are claimed as a portion of the Tschutski race, then they would show the last mentioned to be originally not American, but Asiatic, nay Finnic; and, consequently, that the cranial conformation in question is not peculiar to the New World; but an excessive divergence arising in an abnormal stem, where the sutures close more slowly than in the typical stocks.

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In general, however, it is evident that the nations of this portion of the globe possess a marked similarity of physical characters. They have a small skull, varying in the capacity of the cranial chamber from 100 to 60 cubic inches, according to Dr. Morton's measurement. It approaches the Mongolian in shape, but the summit is more rounded, and the sides are less angular. In some tribes there is a somewhat more pointed crown, and the back part is often flattened, in most cases artificially so; the cheek-bones are high, the forehead naturally rather low and depressed; the nose prominent; in a few tribes aquiline; maxillæ powerful; the mouth rather large, and the lips full, if not tumid. The eyes of all the nations are black, and the hair rather scarce, lank, and coarse; though, among the Arauca mountaineers, and also on the west coast, gray eyes and lighter colored hair are sometimes seen. These tribes, also, are as fair as southern Europeans. The South Americans are more yellow than copper-colored; but in the northern portion the skin is reddish, agreeing with the distinctive name which the native tribes bestow upon themselves; that color being formed by a peculiar tissue below the epidermis, according to Flourens, but yet not nearly so vivid as we have often observed it to be among French and Spanish fishermen in the West Indies.* The Caribs are intermediate: some tribes of Guiana much darker than Mulattoes, and the Californians almost black, or dark like Samboes.

In most respects, the aboriginal population may be divided into the yellow tropical semi-Malay stem of the eastern regions of South America, and the Caucaso-Mongolians of the north, and of the Cordilleras, along the whole west coast of the conti-

* We have personally compared and drawn from life many individuals of different tribes: — Fuegians, Brazilians, Arookas, Caribs, Mosquito Indians, Seminoles, &c., of the United States, and others in Canada of different northern tribes. The highly developed reddish color may be a result of the long-continued action of dry, sharp winds in the prairies of Upper North America.

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nent. The frame is, in general, symmetrical, rather tumid; in the one, below the middle stature; in the other portion, generally above it; and among some tribes, equal to the largest men of the old continent. With regard to mental qualifications, the nations of North America, not having passed beyond the state of hunters, show, for want of the laboring Ox and conquering Horse, the characteristics of others in the same condition. They are active, vigilant, daring, revengeful, restless, cruel, but capable of lofty feelings; full of hospitality, of the love of truth, and of vast earnestness of purpose, when once their attention is roused. Ruins still extant in nearly every region of the continent, and, still more, history, as written by their enemies, attest that they could work out systems of self-development, creating civilizations which were fast advancing to a more reasoned maturity, notwithstanding that the foundations were often stricken down by successive hordes of new invaders, till the whole was finally crushed by European zeal and cupidity; for, notwithstanding our view of a foreign element having worked in the development of the indigenous social institutions, it must be recollected that a few strangers cannot sway a distinct people unprepared to receive their suggestions. They must be homogeneous, — the result of time and of national engraftings, — before they can take root. Now, the Mexican civilization was a reconstruction of one or more preceding it; and the Ulmec and Toltec, so much older, were, most likely, not the first that pervaded the warmer regions of Western America; therefore, the American mind, resulting, as we claim it to be, from two typical stocks of Man, is only inferior in capacity, so far as the existing races are more or less removed from the means of attainment of social improvement; and the cold philosophy of modern science, which inflicts the accusation, is not totally destitute of cognate participation, in producing the conditions of existence it stigmatizes. Luckily, a host of writers, and among them, lately, Prescott, have fairly summed up what the intellectual powers of the aboriginal races had

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already attained, without the intervention of European science. Writers, in general, more dazzled with Mexican splendor, because that empire was more within reach of European curiosity, have not regarded Peru with sufficient discrimination; perhaps because its splendor and civilization was more suddenly and more universally trodden down by the European monsters who invaded it; and fewer documents of its condition have come down to our time. But the nation which had advanced to the established practice of bloodless sacrifice in its worship, had surely gone far beyond the Mexicans; and although we do not know how much of scientific progress was the property of one or of both the two empires, the bas-relief carving, already mentioned, where the sun is represented in the centre of the system, with other planets in the irradiated circle around it, shows that children of the sun, though they claimed themselves to be, had a better notion of the planetary disposition than Europeans possessed to a late period; and that the superior men of the nation were not blinded by the solar dogmas of their religion, is proved by the memorable reply of Inca Tupac Yupan-gui to the monk Valverde, wherein he rejected the belief that the sun was a living body, creating all things; but thought him to be "like an arrow which performs the flight intended by the archer who shot it off." The Peruvians of history appear to have been a partial compound of naturally flat-headed Paltas, and a mixture, probably, of the dominant tribes, with partly artificial-flattened occiputs; but the figures of Incas, preserved in early Spanish documents, offer neither of these deformities. The first were, most likely, the working castes, the second the privileged, and the last appears to have been confined to one sacred family. Cyclopean structures,* or walls, fortifications, and pyramidal elevations, raised with enormous stones, belong, certainly, to the oldest population.

* Such as Chulucanas, on a secondary ridge of the Cordilleras, as well as pyramidal instances of tombs.

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It is likely that others, particularly those evincing greater skill were constructed during the sway of the second, and that the Inca period only adapted them to the system of solar Budhism, which it can scarcely be denied formed the basis of their institutions. Of the Cromlechs of America appearing to be identical with the Celtic, known all over Europe and Asia, we wish not to say more than that they are, to a certain extent, evidence of the early wandering of some Gomerian tribes to the New World; and of the Northmen it is now proved that they reached the east coast by a western course from Iceland, and wandered much further to the south than was suspected in earlier times. Whether any of these survived and amalgamated with the local races, is a question not likely ever to be settled.

The decay, amounting to prospective extinction, observed to be the lot of the American races, is, moreover, a further proof that they are not a typical people, but that they are stems occupying debatable ground, which we have before shown are alone liable to annihilation, or to entire absorption. Yet, in some parts of the tropical latitudes, in Yucatan for instance, so great an amalgamation of the white with indigenous tribes and with Negro imported slaves, has taken place, that this mixed population, becoming sensible of numerical superiority, as well as of the more intense energy they possess in those climates, are now asserting their power; and ultimately this hybrid race may prove a more serious opponent to the white man's insatiable cupidity than the descendants of European conquerors have yet had to encounter.

We have not space to enter into the geographical details of the distribution of the indigenous tribes, further than has been already done, nor to advert more particularly to their dialects; for hordes, without letters or great national expansion, and which are constantly subdividing, exterminating by mutual slaughter, or perishing from constitutional liability to disease, are therefore by no means able to form durable communities

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and persisting dialects. This last observation is already perceptible in the catechisms and prayers printed in the Huron and other languages, by French missionaries, not quite a century ago, and now only understood in consequence of daily repetition and careful explanation. At least, such was the information we received on the spot. One people we must, however, except from the rest, namely, the Carib, or that portion of the Carib tribes which still occupies parts of the maritime border of north-eastern South America, because, as we have before observed, many opinions, institutions, and even words in their language, bespeak an intercourse that once appears to have existed between the ancestors of the present families and a Semitic nation, perhaps Phœnician or Hebrew. That they were once not a sedentary nation is evinced, since they still refrain from travelling in the interior, unless previously prepared for it by peculiar ceremonies, excepting one tribe, which is remarkable for enterprise, and, in a small company, will fearlessly penetrate among hostile nations, much in the character of fighting pedlers. The Caribs were, like their prototypes of the Old World, a nautical people, partly cannibals and conquerors, over all the islands of the West Indian seas; having commenced, some generations before the arrival of Columbus, their career of invasion by those nearest the coast, and gradually extending their enterprise to the north and west, till they had subdued all to the east of Hayti, where, at the time of the Spanish discovery, they had, as yet, only secured dominion for themselves in the vicinity of Samana Bay. It is erroneously asserted that no indigenous people of America had contrived sea-going vessels of any size; for if the information we received while in the country be trustworthy, within a sandy portion of the border of the river Yuna, in this very bay of Samana, a sunken canoe was found buried, which was nearly 100 feet in length, proportionally broad; and what was considered to be sufficient evidence of the period when it had perished, was the discovery of a stone vessel, a stone *casse-tête*,

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and an axe of flint, all within its hollow. Canoes of great capacity were necessary to nautical invaders of populous islands, and the materials for constructing them abounded on the north coast of South America; and, indeed, in the northern portion, there still remain rude sculptures of very long vessels of this class, manned with numerous rowers, particularly on tide rocks, in Massachusetts and elsewhere.

At foot note, page 270, we should have noticed, in confirmation of the northern and marine migration of some tribes, that the Chichimecs relate, that after they emerged out of seven "caves" (islands), they travelled to Amassiemecan, or the northernmost portion of America. Perhaps they were Aleutians, and the term caves, if not denoting islands, may refer to canoes, which, in many languages, bear names allusive, like caves, to hollowness, *Alvei*. The legend is exceedingly like that in Strabo, which relates to the original seven Cyclopeans, who first came from Lycia by sea. They evidently designate ships' crews, since they began soon after to build works of huge stones, such as those near their caves at Nauplia, &c. Votan, the third personage in the Mexican Calendar, according to Francisco Nunes, was the leader of seven families, who came from an island to America, and then brought seven more to the same country. But the bishop of Chiapa is questionable authority.

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THE HYPERBOREAN, BEARDLESS, OR MONGOLIC TYPE.

From what has been stated in the foregoing pages, on the two preceding extensive subtypical stems of the great family of Man, our chief aim has been to produce some of the reasons which, at least, seem to substantiate the conclusion, that both are results of amalgamations of two, or of all the three normal stocks, separated from their original centres of existence, at different epochs, part whereof may be of so remote a date that they precede a portion of those great territorial dislocations already pointed out, which affected both the Northern Pacific as well as the equatorial and southern seas. Whether the period in question synchronized with the avulsion of the plane of earth which originally abutted on the western base of the Cordilleras, is not now a question to be discussed in the bearing it might have on human existence, since there are sufficient evidences to show that the present tenants of the island groups can mostly be traced to more recent periods; and the traditions of the northern hemisphere, in both continents, tend to prove the arctic nations, of the present time, to be of comparatively late expansion over their now dreary abodes. The question, however, is not without some curious circumstances affecting the beardless type, which we pointed out as first traceable in the north-eastern flanks of the great central table-land of Asia. But more attentive search seems to establish the fact, that, even there, during many ages, it cannot have been the dominant stock; for as on most other occasions we find the older races of Man, that possessed a given country, and were obliged to yield to the power of later invaders, hold to the last in the fastnesses of mountain ranges, so we observe here, from the Chinese annals, whole nations of Caucasians, Kinto-Moey, Yuchi, &c., possessed of vast portions of Thibet and Eastern Tahtary, and

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maintaining their ground to the times immediately preceding and succeeding the Christian era, when they were first driven westward, whilst others are now found subdued and incorporated with the Celestial Empire, though still retaining their distinctive characters of ample beard, horizontal eyes, and lofty stature. They are spread in population about the river Amour and the hill countries, while others, such as the Miao-tze (cat-people) and the Mou-lao (wood-rats), occupy, in the south, the wildest mountains in Se-tchuen, Koei-tcheou, Houkang, and Quangsi, to the frontiers of Quang-tong. None of these nations and tribes can have penetrated eastward, from Thibet, after the Mongolian races were fully established in the plains. They must, therefore, be of anterior date; and, as we see above, in the case of the Yuchi, the residue of the people driven from the more fertile plains, by the force of invaders. All the way to the Malayan peninsula, every known event tends to prove here, as in America, that a succession of invasions followed upon each other, from the north, and formed variously amalgamated nations, still marked by strong distinctions in Indo-China, Australasia, and the South Sea Islands.*

The facts here stated, when accepted to the extent they of necessity imply, establish that the Mongolian type was not primævally predominant in Thibet, and, at most, hung on the north-eastern flanks of the plateau of Tahtary, in the same manner as the woolly-haired appears to have done on the southern. Yet there was assuredly a huge development of this stock, at the most early human period, which, as it could not be concentrated immediately on the high land, was clearly produced in the north-east, most probably from the basin of the

* In proof of the departure of the Mongolic nations from the high north, may be shown, that they always look to the south as the object of desire, naming the west by the same denomination as the right hand, and the east as the left; therefore totally distinct from Caucasians, who universally, from a religious motive, look to the east, and call the west the back.

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upper Lena to the sea of Okotsk, and bounded on the south by the mountains of the Jablonoi and Tugurek chains, that is, between 55 and 65 degrees of north latitude; for it was through the passes, at the head waters of the river Vitim, that it appears the Mongols first pushed their conquests forward among the Yuchi, then in possession of the southern borders of Lake Baikal, and the Mandshures subjugated the Shagallian territory, washed by the great Shika or river Amour, where the ruins of most ancient cities, captured and abandoned by the beardless stock, are still to be seen. Desolate cities, with standing gateways, in a great degree perfect, and monstrous statues, akin to, but far more elaborate than the more early Scandinavian and Gothic works of art in Europe, indicate no very remote period when they were forsaken, and testify that the religion once predominant had more affinity with the northern Caucasian doctrines of the west, than with the Budhism, Shamanism, or any other superstitions known among the beardless nations.*

Having before shown the opinion, drawn from high authorities, and corroborated by Chinese annals, that while the Polar Sea covered, to within recent ages, several degrees of latitude in northern Asia, the climate must have been considerably milder than at present, and consequently have facilitated migration to the eastward, even if Behring's Straits had then already its present dimensions, and the Aleutian islands did not form a more continuous chain than they now exhibit. These circumstances may account both for the Caucaso-Mongolic propulsion to America, and for the comparatively late period

* Par-hotan, city of the Tiger, a mass of extensive ruins, on the Kirton-Gura of the Kalkas, and to the north of Mongolia. The Kirton-Gura communicates with the Amour by the Kulon-nor lake. The ruins are in latitude 43, and in longitude a little west of Pekin. Though not built by the Mongolic nations, this and other cities were no doubt occupied by them till after their conquest of China, when to permit another hardy population to grow up concentrated in the north was no doubt found to be unadvisable.

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of development which that stock displays towards the south and west.

The earliest Chinese annals may not in reality belong to the beardless races, but be an appropriation made by them after their first conquests were effected; for the Chinese heroes and social institutions, including Foh himself, have, in their human relations, characters that do not belong so much to them as to their predecessors, the Kinto Moey, or Yuchi. They have also usages, like the feast of lanterns, which have no proper meaning in their legends, though, like the Hoolee of India in substance, they may be regarded as the same, since they are both dedicated to the opening spring. It is doubtful whether at Canton the votaries of Budha understand the hymns sung by them in his praise; for they are obtained from Ceylon, though the religious system itself is derived originally from Thibet, or perhaps, with still more certainty, from the more western portion of High Asia, before the Hyperborean diffusion reached that quarter.

The beardless stock, in its primæval abode, may not have attained the full stature of Caucasians. Migration to more southerly regions, still more, innervation derived from inter-union with bearded races, probably gave it the development now attained; for no giant tribes are recorded among the unadulterated nations of Mongolic origin; and many instances occur, where, like Anna Comnena, speaking of the first appearance of the Turks, they are described to be of small stature. Here, like in other cases, it should be borne in mind that the ruling tribes and royal clans, the greatest sharers in the division of spoil, possessed the principal proportion of Caucasian captive females, and thence acquired an external superiority of aspect, as well as much greater cerebral expansion. This fact is forcibly shown in the Osmanli and Toorkee dynasties of Europe and Persia. Mythology and romance notice dwarfs and Pypilikas, or gold-finding ants (possibly a mode of describing the gold miners of the Altaic range),

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Tschutski, Jakoutski, or others, not perhaps pure Hyperboreans, such as the iron-working Niron tribes of Mongolia appropriately typified by griffins and dragons, since these very monsters have been their national ensigns from the remotest ages; and at several times conquerors have issued from among them, desolating the earth, and forming the greatest as well as the most transient empires in human history.*

Whether the Phryni and Seres of antiquity, mentioned by Pliny, Strabo, and Ptolemy, were really of the beardless stock in possession of Kashgar and Yarkund, and associated with the Tokhari as early as the Macedonian conquest, may well be contested, since the conjecture of Dr. Vincent, that for Scythiæ should be read Sindh, is proved to be incorrect. The southern glens of that region, being the spontaneous land of the mulberry tree, had then, no doubt, their own different species of indigenous silk-worms, which they still possess, and from their produce the name Serica was derived, as well as Seres, without reference to the origin of the nation that then had rule. There can be little doubt but that they were Caucasian Scythians of remote times, since the name of the Tokhari has been read phonetically among the vanquished tribes represented on Egyptian temples, where the conquests of a Thothmes or Remses are depicted, and the population of those high lands is not even now Mongolic. What the earlier Greeks related of the Seres, who were reported to be satyrs, eighteen cubits in height, sufficiently proves they knew the name only in connection with some colossal statues of Indian or of Bactrian divinities.

The Chinese, in their earliest records, seem to denominate the whole beardless stock *Le Min*, or black-haired people, according to the old classical comment on the *Yaou Tan*, in order to distinguish them from the foreign races, which are designated as invariably red or fair-haired; that is, *Yuchi*.

* Such as Ogus Khan, about 657 B. C., to Genghiz Khan, about 1154 A. D.

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The Mongolic type is, in truth, unknown to ancient history in the shape of organized nations; but isolated tribes have penetrated westward at early periods, more or less mixed up with that subtypical stock which formed the Finnic or Ouralian nations, whose presence in Europe we shall shortly mention. Those among them which are least mixed by Caucasian interunion, certainly still retain the characteristics evidently belonging to the most pure and ancient Hyperborean beardless tribes; still the following description is applicable to both, with only so much difference as the conditions of their respective situations admit to be results of circumstances only.

The Beardless Hyperborean,* or Mongolic type, differs from the white Caucasian and Melanic stocks, by constant characters, which mark it externally, even where the subordinate stems are greatly adulterated by intermixture, or modified by climate and other causes. It is a form of Man distinguished from the other two types by a facial angle, sloping backwards from 70 to 80 degrees — the contents of the cerebral chamber varying, according to Dr. Morton's measurement, from 69 to 93 cubic inches; the head is rather small, the face flat, the cheek-bones projecting laterally, the eyes small, not much opened, appearing to be placed obliquely, with the external angle upwards, chiefly because the lachrymary gland is concealed by the upper lid, which turns directly down over it. This is a provision of nature common to the ruminants of high latitudes, and the most elevated ridges, who are all destitute of tear pits, probably because the lachrymary structure cannot be exposed in a rigorous climate without positive detriment to the eyes. The Mongolian eye has always a dark iris, the eyebrows are narrow, the hair is coarse, lank, and black, the beard scanty, not curly, partially or wholly wanting at the

* The denomination of hyperborean is more strictly applicable to the Arctic stock, though by the ancients the same designation is commonly believed to refer to Gothic, or at most to Finnic tribes, who were at that time merely *borea-*, or northern inhabitants.

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ears, and it appears to be of the same pile as the hair of the head. The nose is small, somewhat pointed, and the mouth well-formed. In the Nogai race the nose is, however, round, flattened, and dilated, the cheek-bones still more prominent, the lips are tumid, and the eyes almost reduced to linear openings; while the black Kalmucks have the obliquity of the lids still greater, so that their external angles seem to be almost forty-five degrees above horizontal. All the true beardless nations are olivaceous in color, the skin varying from a kind of sallow lemon-peel, through various shades of greater depth; but it is never entirely fair, nor intensely swarthy; although, in the adulterated races that occupy the Himalaya range, slight appearances of blush may be discerned among young people; and the black Kalmucks, from some other unexplained cause, are of an ashy darkness, not far remote from the true Papua color. The typical nations are all square of body, in stature rather low, the trunk long, the extremities seldom or never lengthened, and the wrists and ankles are weak.*

These characteristics of the Hyperborean type retain such uniformity, that the American races are in most particulars, as we have already shown, but little aberrant, and the Malay, Indo-Chinese, &c., continue to bear them, in the exact proportion of their commixture with other aberrants, and of the influences generated by local circumstances. In the same ratio we also find the physical structure to harmonize with the intellectual qualities. The Hyperborean evinces a feebler innervation than the other typical forms of Man; he is less under amatory influences, less prolific, less enduring in toil; hence more dis-

* Where the gland is visible, the eye horizontal, and the beard spreads up to the sides of the ears, there is certainly a mixed descent. It is most common, perhaps solely observed, among natives of the northern provinces beyond the wall. No doubt the superior energy and capacity they evince is the cause why they are everywhere in office, and that so many portraits, thus characterized, occur in the Chinese Museum now exhibiting in London.

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posed to severity where he has power; to a victim or a captive inflicting needless torture, less from natural ferocity, than from the want of individual self-reliance, which is thus prone to express fear by precaution. More readily reduced to order when subdued, he evades rather than resists oppression by force; he is more obstinate than brave, but savage to self-destruction when roused by despair; avoiding personal exertion, such as to walk or to dig unremittingly in the fields, he rides in every region when the Horse is accessible; more imitative than inventive, he exerts his ingenuity to apply mechanical aids in necessary labors. Sitting at work, he is dexterous, but little tasteful; at handicraft professions, preferring patient elaboration to exertion; lazy, yet gluttonous, omnivorous with scarcely any distinction; filthy, amounting to a dread of water; crafty, dishonest, plausible; in war he trusts to his horse, or to numbers; he finds sudden irruption, cruelty, plunder, and desolation, more congenial than open battle and victory.

With the mind more vacant than contemplative, the religious sentiment, that source of all exalted and practical feeling, has never risen above an indistinct idea of a Supreme Being, a heaven, or a solar worship; it is better satisfied with the true northern impostures of Shamanism, and with the borrowed demon worship engrafted on Budhistic doctrines; for what is of true moral tendency, either in the ethics of Foh or Budh, is of foreign origin, and repugnant to the intellectual puerilities which are his substitutes for reason, philosophy, and science. A deified, ancestral, and paternal obedience stands in lieu of practical religion — his only support of that innate moral feeling belonging to all human beings. It is the key-stone of absolute power in the state; hence coercion is the civilization of the masses, ceremonious punctiliousness that of their superiors, ignorant self-laudation the acquirement of literati, and insolence the portion of all. The discoveries they possess in physics are the results of chance; all the maxims of state are

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immutable, and repressive of progress. Though early in possession of the mariner's compass, and (particularly the Japanese) long compelled to a familiarity with the sea, none of the beardless tribes ever became true navigators, or reasoning shipbuilders.

The typical nations have monosyllabic languages, depending greatly upon phonetic expression, and their letters are pictorial symbols, immensely diversified; hence their so-called poetical compositions cannot be highly figurative, or reach beyond mediocrity, and their learning is greatly restricted by the cumbrousness of its elements. Finally, what is known of social advancement, of inductive reasoning, or of mathematical acquirement, is derived from foreign sources, or is the work of interunions with the various Caucasian races, Yuchi, Kin-to-Moey, Hindo-Chinese, and others, scattered through every part of the organized nations of the beardless stock.

It appears that the present Mongolic tribes were long ignorant of the real use of the Horse; while, in the arctic regions, the white woolly race of the Jakoutsk was not deemed serviceable, except for food.

From the Subaltaic Yuchi, who were the first rulers, they no doubt learnt the art, and became conquerors, by the sole acquisition which changes the relations of every people on earth accessible to the animal.*

This was certainly subsequent to the oldest Hyperborean invasion of China; for, even to this day, that immense region produces very inferior animals, excepting those bred by the Caucasian Miao-tze mountaineers.

Yet, under favorable circumstances, and no doubt with some aid from the Caucasian elements spread through the masses, they have achieved an homogeneous civilization, as early, perhaps earlier, than any people of the south and west;

* The Mongolic nations eat horse-flesh. Wild horse-meat, butchered for the market, is still sold daily in many parts of China.

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and though the reflective powers confer but feeble modes of reasoning, and often false conclusions, a sort of erratic common sense has caused them to alight upon moral truths and humane sentiments, which the most polished nations of Europe acknowledge, but scarcely put in practice. With the conditions of existence here shown, it is evident that a people, such as the Chinese in particular, according to their own annals, while residing in the southern flanks of the Khinghan mountains, would multiply in time, till want of subsistence compelled the masses to industry, and that, unwarlike and sedentary in the plains, they would fall beneath the energy of kindred tribes, coming upon their horses from the bleak north, to commit devastation, grasp the empire, enslave by mandates, and by an enormous police, till vanquished by the enervating process of the system, these too would fall in turn beneath a new horde of invaders. There were unquestionably more than the two well-known conquests of China, since the empire included the more ancient separate sovereignties; and though the fate of rude conquerors over more civilized nations of homogeneous origin, is ever to become, in civil administration, the pupils of the vanquished, the new dominion debases both.

These events are clearly shown in early ages, where the conquering hordes on the plateau of Thibet come up, or are first observed stationed on the south-east, as if they emanated from China; and they speak of great empires, formed in remote ages, among which that of Orgus or Oloug Khan the Great, who flourished, it is said, about 657 B. C., should be mentioned, if indeed his exploits belong to a Mongolic or beardless people; for he resided in winter near the Sir-Deriah, or Jaxartes, centuries before the *Geta* and *Sakia* Caucasians came westward by this and the Oxus rivers.

Japan, divided into islands, in part possessed by tribes not typical, but of anomalous origin, with a colder stormy climate and soil, often disturbed by the most terrible earthquakes, presents a more energetic population, which, being free from

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foreign wars, is ever ready to break out in sanguinary rebellion, not a little fostered by the jealous timidity of the ruling powers.

On the south of the Chinese empire, vast woody mountain ranges and abundant rivers constitute wildernesses of vegetation, thinly inhabited by nations forming several kingdoms, with an interior but little known. The Mongolic stock is most numerous on the north-east, the Caucasian type on the west, and in the interior and the Malay peninsula the Papua population still lingers. Power is in the hands of the first; the denomination of geographical localities the patrimony of the second; and the third has undoubtedly intermixed and adulterated the blood of both.

By these facts we detect the successive occupiers; — the Hindoo races invading the aborigines long before they were in turn made subjects of the beardless conquerors. This process, we have already shown, has extended onwards through the Australian and Polynesian islands, with an additional element of an Arabian, and, later still, of an European amalgamation.

On the north of China, whence the civilized and sedentary southern people have originally emanated, we find the nomad nations still tending their herds; consequently, these are the real typical Hyperboreans, and, accordingly, they possess the distinctive characters belonging to their origin, in the maximum of development; — the Manchures, or Tungusian stem, Mongols, Bashkirs, Kalmucks, Kirguise, Nogai, Usbeks; Turcomans being more mixed; and all, in general, misnamed Tahtars, for that term designates, originally, a mere tribe of vanquished inhabitants, who were made *tributaries* by the earlier Mongolian invaders, on the south of Lake Baikal; and in process of time it was extended to other nations of dependent states further to the west. The Mongols and Manchures, in graduated proportions, are, at present, the stall-fed masters of China, and nearly form the whole real military force of the empire, consisting entirely of cavalry, probably less than

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250,000 strong, covering the inert mass of 300,000,000 subjects, with the aid of 800,000 policemen, denominated infantry, and an enormous crowd of civilians and satellites, all intended for internal rule, and incapable of external vigor.

They are, to all appearance, the first who came from the remote north-east, after the Japanese and Chinese. Of the Turkish stems, some have acquired a Caucasian form of head, such as the Osmanlis and the so-called Russian Tahtars, residing in towns; but the nomadic tribes, the Nogais, Kirguise, Turkoman, and Jakoutsk, retain the original structure of the Mongolian form, while the Turks further betray their hybrid character by the number of Sanscrit words found in the language they speak, which, since they were not among the ancient invaders of India, must have been incorporated on the north side of the great central mountain systems of Asia, and, consequently, from a Caucasian people, whose tongue was a dialect of this great language, proving that it had a national existence much further to the north than is commonly surmised. The name Turks, Toorkees, may designate mountain men, for it agrees with their earliest history, as given in the Chinese annals, according to Klaproth, Abel Remusat, and others, who assert that they descend from the Hiong-nou, a people whose capital was Kantcheou, in Tangut, and that they came down the snowy passes of Tang-nu and the great Altai, upon the west, probably by the upper Irtish and the affluents of the Jaxartes. The same annals, however, pretend that they were seated on the northern flanks of the mountain ranges, which may refer to their remoter habitation on the Irtish, but not near the Shensi and Shansi provinces, unless it was after the Yuchi nations were ejected; for these were still opposed to the Mongols, in those very regions; and the abundance of local names now remaining in Thibet shows that Caucasians occupied a great portion of the high land plateau to a late period. It must have taken ages to dislodge tribes, which we find in subsequent periods making a prodigious resistance;

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and therefore the progress from the high declivities of the Mongolian steppes, which they appear to have held at an early time, to their occupation of the Thian-Shan mountains, may be admitted to come within two or three centuries before the Christian era, because Kanishka, a Caucasian (Sakia) prince, came down and conquered Bactria, only in 120 B. C. It is, therefore, probable that their most ancient name of Hoei-yu was changed to Hiong-nou, a century or two later, when the Caucasian intermixture gave rise to dissension, and their power was broken by civil wars and Chinese dexterity. Though circumstances and dates in Chinese records should not be held more credible than our own western documents of remote antiquity, they still deserve general belief in the character of the events they narrate. Here their course is perfectly natural; and from other sources will be shown, in the sequel, that this general character is fully sustained in the later ages here mentioned.

The percussions then given to the nations of central High Asia appear further to be depicted in the figurative, or perhaps physically true legend, that in the fifth century of our era the Oxus and Jaxartes dried up for seven years, and the populations resident on their banks were forced to emigrate for want of water. The period is coïncident with that vast convulsion when the Hunnic empire suddenly expanded from the frontiers of China to the mouth of the Rhine; and though not entirely, perhaps not even chiefly, composed of Mongolian hordes, as we shall presently show, it certainly embraced, beside Toorkees, vast legions of Kalmucks, Kirguise, and Bashkirs, who, in the career of victory, under Attila, spread, till, in the subsequent dissolution of that power, they could never again reunite to preserve independence; for when, at a later date, fresh waves, entirely composed of the Hyperborean stock, swept them again, in the career of desolation, to the west, Nogais, Usbeks, and Kalmucks, still more dislocated, settled further on to the Crimea, from whence, however, the forgot Kalmucks, by

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a noble effort to retain their nationality, suddenly departed, in the last century, and, retracing the steps of their ancestors, moved eastward in a vast column, fighting their way through all opposition, till they reached the Chinese frontier in safety. The western direction of the Hyperborean conquests was more particularly marked in the reign of Genghiz Khan, in the twelfth and thirteenth centuries; of Timur Leng, in the fourteenth; and Nadir Shah, in the seventeenth; during which period, or, rather, from the time of Boleslas the Chaste (1227), to that of Stanislaus Augustus, a Polish writer enumerates, with some exaggeration, not less than ninety-one invasions of Poland coming from the east. Strange, however, as it may appear, none of the foregoing conquerors were themselves pure Mongols, but by connection they all possessed a portion of Caucasian blood, through Finnic, Yuchi, or Turkish alliances.

On the north side of the great wall of China, the terms Kuthais and Kara Kuthais are not clearly designated; they may apply generally to the Mongolic residents, though it is evident that the last mentioned refers to a dark race, perhaps the swarthy Kalmucks. It was from this region that Genghiz Khan and his clan first commenced their conquests, which, in Octai's reign, were divided into several dominions.* It is,

* These conquerors all sprung, directly or indirectly, from the Niron Cayut, chief family of the Niron tribe of iron miners, smelters, and forging smiths, or Arkenikom, residing in the sacred district of Kobdo, north-east of Irmingtan Peak, part of Altain Niro, situated on the edge of the Shamoo, or Gobi desert, and not far west from Karakorum, once the capital of Genghiz Khan. From this point the waters flow, by the river Selinga, into Lake Baikal, and thence, finally, by the Yenisei, into the Polar Sea. It was here Pisouka Bahauder, eighth in descent from a child of light (Nourayon), laid the foundation of the empire which Genghiz formed. But it must be remarked that the ancestral names of the family do not indicate so much a Mongolic as a Caucasian Finnic origin. Probably the mining mountaineers were still of the Yuchi stock, and, as usual elsewhere, soon became the master tribe over the invaders. In these mountains are probably the oldest mines in the world. Here the Pipilicas (gold-finding ants), of Hindoo lore, may have been Hyperborean Fins

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however, a remarkable circumstance, that, excepting in the ruling families, the unceasing importations of Caucasian female slaves, victims of inroads, which for a succession of ages swept the populations of Southern Asia, and the whole of North-western Europe, independent of similar devastations perpetrated by Mongolic nations, at still earlier periods, over the Yuchi and other Oriental Asiatics, the Caucasian stock should have left such scanty outward evidence in the masses of the conquerors. The lower innervation, and consequent deadly apathy, in the relations of humanity, alone can account for it. Small as the influence may be in other respects, it has, nevertheless, tended to produce, on the north of the great wall of China, a Caucasian ratiocination, which the Kara-kuthai, and all Tahtars evince, in the Islam religious expansion.

Batu Khan, nephew of Genghiz, formed, about 1223, the celebrated Golden horde in Kiptchack, a state between the Don, Volga, and Yaik, where, with the habits of various races of mixed and true Caucasians, an immense caravan trade was created, and extended to Samarkand and China on the one side, and on the other came to Astrakan, and thence, by the Volga, to Cazan and the Baltic, or by the Don to Azoff, or, lastly, by the Kur and Rion, reached the post where the Genoese had revived the trade of ancient Colchis, — a wise and industrial system, which, while it lasted, conferred such riches on the government and people, that the resplendent name above noted was the consequence. But that the evident advantages of a peaceful policy could not wholly restrain the habits of rapine, is evident; for it was at this period, 1237, 1241, that Batu, with the Kiptchack or Komans, and Petah Khan, with the Telebog and Nogai swarms, made those great inroads upon eastern Europe which nearly depopulated Russia, Poland, Hungary, and adjacent provinces. But the successes

(the Bergmen and dwarfs of every legend), and their dragon guardians Caucasian Fins, such as the Niron, who seem at all times to have recognized a dragon for their national standard.

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of so many ages at length appear to have blunted the restless characters of the Mongolic stock, and their habits became stationary. Pastoral nations, though often conquerors, ever finish by receding before the steady progress of energetic cultivators. It is exemplified, in this case, by the gradual reäction which sends the Caucasian eastward, to recover the debatable ground. After 1800 years of conflict, he has already regained a great portion of the original seat of the Hyperborean type.

Russia has subdued several nations who have little or no history; among others, some of real Mongolic descent, and the Sogha, or Yakutsk, of all men the most hardy, together with the lofty Tschutski, of pretended American origin, but neither appearing to be true Mongols. An important consideration affects the condition of these arctic nations of Asia, namely, the fast decrease of the Reindeer, both domestic and wild, threatening, at no distant period, to reduce the already miserable existence of the people to starvation, where no migration towards the south can offer to improve their lot. The cause of this privation of almost the only source of comfort, in those dreary regions, is not yet fully explained, although several tribes are already totally destitute of their domestic flocks. It may be here, as in North America, that some law in nature is operating, in combination with the progress of civilized nations, to change the character of the high north, and leave it a desert, with scarcely a human tribe able to subsist on it; indeed, the only people must, ultimately, be Samoyed, Esquimaux, and Lapland fish-eating Hyperboreans; the sole remaining race of the beardless stock to which we have space to refer.

This people, in both continents, being ever greatly restricted in food, either at no time acquired the full stature of the type, or it still retains the original appearance, from which the nations in better circumstances have passed to more ample structures. Though diminutive, they possess all the characteristics of the Mongolic form, so far as they remain unmixed; but in several instances they have formed unions with the

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nearest ejected Caucasian tribes in Eastern Asia, and also, in extending along the arctic shores to the west. By means of their snow skates, their Reindeer, and their seal-skin coracles, they found means to traverse a great space in less time than other migrators; to cross over ice in winter; to pass the Asiatic Mediterranean, which, at that period, may not, as yet, have been totally absorbed; or to cross Behring's Strait, which, however, they do not seem to have accomplished until ages had elapsed. In this manner, they came early in contact and commixture with Caucasians, such as the western Yeta tribes, on the shores of the sea, or those they may have found to the west of it, about the Ouralian mountains, and formed the Finnic subtypical stem, on one side, and the Tschudic on the other. Both these suppositions are strengthened by the appearance of Finnic words in the Mexican language, and by a similar occurrence in the Basque dialect of the Pyrenees, while, on the plains of the north-west, other facts show how near an intimacy was established between the ancient Swedes and the Huns, and between these and the Magyars, who were kindred of the Turks.

While this stem of the Mongolic type is thus shown to have spread at a remote period, and to have been mixed in the more temperate climates of the old continent, it is, in a pure state, evidently less ancient than the other populations of America; for it has only been permitted to dwell in regions never occupied, or totally forsaken by them, — that is, the Polar and north-west coast; and as they were thus not wanted to assist the necessities of anterior colonists, they have continued to be regarded as enemies, being still unmercifully slaughtered by the stern Indian, on all occasions where he can glut his passion for bloodshed, under the pretext that all the Esquimaux are sorcerers.

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THE FINNIC, OURALIAN, OR TSCHUDIC SUBTYPICAL STEM,

Appears to have arisen from an interunion of the two great typical forms of the north; for its characteristics become prominent in proportion as the respective alliance with one or the other is predominant; thus, while the Skrict-Finn or Laplander, nearly of pure Hyperborean blood, verges in the same degree to the Mongole stock, the Finlander is in structure entirely a Caucasian, though both speak dialects of the same language — here, as elsewhere, showing the ready predominance of the Caucasian blood. All the nations of this stem have considerable flexibility of voice, and consequently a great facility in acquiring the languages of their neighbors and of strangers; and hence the Sclavonic and Teutonic dialects have swept away the Finnic in all places where the resident tribes were not isolated by the nature of their country. In Asia the Tschutski are of similar origin as the more western Finns,* and seem to represent the parent stock whence several nations of America take their source, while they are claimed as the most ancient miners of the Altai; a character which again recurs among their kindred of the west. Industrious from necessity, the scattered, less warlike tribes, with that Mongolic tact for applying artificial aids in their labor, early found walrus teeth sufficient to separate portions of meteoric iron or aerolite, anciently more often found in large masses than at present; with the aid of stones they learnt to hammer it into tools, and

* Tschutski and Finn are convertible terms in Northern Russia. Tschudi is the Russian name of Finland, and the true appellation of the ancient Scythians. Joten were the giant families, or Gothic Finns of the Germans. There is still a tribe of Tusci remaining among the inhabitants of Circassia; and if Rauwolf be correct, the Druses of Libanus were called Trusci. This indicates a portion of the Finnic race to have moved, at a remote age, through Asia Minor towards Syria, and it may thus have formed one of the early constituents of the Imilicon of Palestine. From the Altaic gold mines to the west they were in all places troglodytes and miners.

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subsequently into the celebrated swords of the ancient north. Horns of the Elk, and antlers of Reindeer, made ready shovels and pickaxes; and having already a knowledge of meteoric metal, they soon found, that by digging, ores might be brought up from beneath the surface.*

The zone of earth given them as a patrimony being intersected at right angles by many enormous rivers — by the Iceland or German Sea — by the White Sea — by the still remaining portions of the Asiatic Mediterranean — by Behring's Straits — and unceasing winters causing many sufferings to migrators on the east and west, they, like all other men, must have desired to wander to more genial and passable regions; and accordingly, nations arising from this branch of the Mongolic stock, gradually more and more mixed with Caucasians, can be traced southward, down to the great central range of mountains, where they were met by the opposite commixture of swarthy races, while the purest typical form of the bearded type clung to the line of mountain prolongation, or occupied parallels along it to the western extremity of Europe. The commixture of two typical races, as before observed, is often productive of larger growth among individuals, especially if the northern Caucasian predominate. On the edge where they encountered the Hyperborean, they mixed with it, perhaps alternately as subjects or captives, and as masters, until both were pressed by others, again subdued, or driven forward to other regions. Several of these, and other nations hereafter noticed, can be traced back to the Colchian sea-ports, to the shores of the Meotic estuary and Tauric Chersonesus, where materials for navigating the great rivers of Scythia first improved their experience to dare the more open sea of the Euxine, ascend the Danube, or pass through the Bosphorus into the

* We find them tenants of Southern Siberia, up to the vicinity of the Jenissei about Krasnojarsk, where Pallas discovered an iron mine still retaining stone hammers and brass tools, ascribed by the present Tahtars to the Tschutski.

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Ægean, and ultimately to become intrepid seamen. Though they possessed some industrial knowledge, destitution, famine, or other causes, made them fierce savages, often positive cannibals. Such, it is likely, were the Cyclopeans, Lestrigons, Sicanes, and Siculian swarms, which long terrified the more southern Asiatic emigrants on the shores of the Mediterranean. But before the historical era, they were already followed by others (the mining and forging Idæi Dactyli?) and blended with the first Gomerian people that came westward, and together with them, finally merged into various Celtic tribes of Italy, Gaul, and Spain, and occupied the north coast of the Adriatic, where, notwithstanding the character they bear with posterity, they were advancing in the arts of civilization.

Others of a still greater Scythic innervation, it may be inferred, penetrated by the passes on both shores, along the western Caucasian chain, and crossing the ridges of Armenia Minor, came upon the Upper Euphrates, skirted the eastern flanks of Ammanus, till they reached the Syrian coast; or, continuing to descend the banks of the great river, formed a portion of that Scythic element which is constantly traced in the Hebrew historical records, and repeatedly noticed in the heroic age of Arabian traditions.

In this way they constituted the chief source of that red-haired people which is still found in the mountains of Palestine, and is known as the Montefict Arab, and probably formed the first or primitive Phœnician pirates and traders. A tribe of this people was extant on the Euphrates, under the name of Rhustumi; others occupied the Arabian islands; and if all the earliest Scythian tribes were of the same mixed origin, they were the invaders who ruled in Egypt by the names of Hyksos and shepherds; the same who were the cause why red-haired*

* The quality of red hair belongs exclusively to northern Asia and Europe; beside the Northmen and their descendants, it is still almost wholly national among several mixed tribes of northern Russia. If Assyria once

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men, and even rufous oxen, were sacrificed, after their expulsion, in detestation of their dominion. They may have been the parent stock of the Beni Koreish, since the Seyads, who in Asia still pride themselves as descendants of the prophet, stain their beards to a red color; and, finally, clans are likewise still found scattered inland of the northern African shores, where they are taken to be remnants of the Vandals, who were indeed a branch of the same stem that came round by the west end of the Mediterranean.

Finnic Scythæ, Rauwolf's Trusci, may have passed to Abyssinia with the first Arabian tribes, and influenced the building of cities of wolf priests, such as was the capital city Tegulet; for who but a people of northern origin would have thought of wolf gods and lupine priests, particularly in Africa, where no true wolf is as yet proved to exist? for the Ounce of Egyptian Sycopolis, Siout of the Prænestine Mosaic, surely cannot be the insignificant Chakal or Canis Anthus.*

We have omitted to notice another characteristic that marks the primæval Finnic tribes, namely, their dwellings, which once were in Europe similar to those of the present Tschutski of Eastern Asia, and of the North American Indians of the same stock. They are figured in Catlin's Travels, and still

was held by red-haired men, they most assuredly originated from people beyond the Caspian.

* This worship was well known in the south of Europe, where northern tribes had penetrated. Finns, Etruscans, or Pelasgians, most likely instituted the Hirpi, wolf priests, at Soracte, the Luperci at Rome, the most ancient sacerdotal order in the city. Such, again, were the priests of Latona at Delphi. They existed at Thebes in Egypt, and were in all cases funereal ministers. They had, it is probable, mysteries which were the origin of the power to assume any shape, ascribed to the Budas or blacksmiths of Abyssinia, to the Wehrwolf in Europe and Asia, the Escolar of Portugal, and of Bassa Jaon, the mysterious smith of the Basques, the Crewe, Blotmen, sacrificial priests of the northern nations, who slew human victims; the medicine men, exorcisers of North America, the Shamans of Asia, and even the Druid victimizers, wore wolf-skin dresses, or at least girdles of that material.

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more correctly in those of Prince Maximilian of Wied. In the west they were named Dan, Den, Tan, Ton, &c., denominations preserved in Denmark; Danes Tannieres in Belgium; Tonningen in North Germany. They exist now in Lapland, and among the Samoyeds; are the origin of the legends of the Bergmen, burrowing men, where the forging Alfen dwelt, who were miners and sword smiths in Asia, Scandinavia, and Germany, including Carinthia, long the legendary dwelling of Laurin, brother of the Norwegian Alperich, and the Asiatic Sinnel, princes of a dwarfish people. Even the garden of roses, the mysterious retreat, where the dwarf king, with his subterranean powers, was vanquished by Dietrich of Bern, the Gothic hero, might perhaps be pointed out in the wonderful cavern of Adelsberg,* with its mysterious river, not far from various mines, and particularly that of quicksilver, about Idria.

Having been checked in a western progress, perhaps by the still remaining salt marshes, already interspersed with barren sea sands, in north-western Asia, the Scythic Finns accumulated and grew to nations of variously mixed character, not unlike those already noticed in south-western Asia and Egypt; but it was ages later before they developed, and pushed on by Lake Ladoga to the Baltic. Here, propelling the true Hyperboreans, they became Finn-laps, and next, the earlier Scandinavian inhabitants, at the same time that they formed also the Esthonian, Biarmian, Prussian, and other maritime people. On all these coasts, a certain affinity with, or pressure by, new

* This is close by the elevated Schneeberg. The Laybach is twice lost in the earth, and again reappears. The Zirknitz Lake, supplied by subterranean torrents, suddenly becomes empty, and as rapidly fills again; where also the mysterious *Proteus Anguinus* comes up from reservoirs of everlasting night. The cavern, twelve miles in length, is adorned with stalactites, forming halls, corridors, recesses, pillars, obelisks, hangings, and even forms of animals, so strangely commixed, and of such enormous proportions, that here the powers of enchantment were naturally believed to have held their court.

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hordes of colonists possessed of Gomerian blood, or at least of Celto-Scythic traditions and practices, is indicated. It forms the Celtic element in their composition; and from this source they acquired, together with a portion of their dialects, those habits of forming circles of stones and cromlechs, which are still abundant in Norway, in some parts of north-western Germany, and Friesland. They possessed traditions originating in the north as well as south of High Asia; legends that recur again in the Celtic Basque provinces, and even in western America.

The small clans, ruled by a patriarchal or family system, which the earliest documents of the Celtic colonists in Britain acknowledge to have found on the soil, and whose smoky cavern dwellings may be traced perhaps near Brixham, on the shores of Torbay, must be referred to that sub-type of the human race; for not being of the Celtic stock, they could not well be of other than of Finnic origin. In the generally scattered diffusion of residence, having abundant supplies of food from the sea, the lakes, rivers, and forests, small clans, with affinities in dialects, creeds, and consanguinity, could not find many motives for hostility. Those savage wars of extermination, rising out of ambition, or for the possession of favorite localities, most likely did not occur until greater pressure of new colonies, vastly augmented populations, increasing cultivation and wealth, roused cupidity and the spirit of dominion; for, otherwise, the sudden march of whole nations could not subsequently have taken place unmolested by neighbors; such, for instance, as the Gallic, down the Danube, to Greece and Asia Minor; the Boian, north-eastward to Bohemia; or the Cymber, from the coasts of the German Ocean to Italy.

In the east of Europe we find a myrmidon people, again, no doubt, burrowing ants, like the gold-finding miners of High Asia, with Thessalian Larissa, subject to the Thraco-Pelasgian Achilles. Moreover, we find the Helotes, and other indigenous tribes reduced to slavery by conquering Heleni,

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who themselves acknowledged gods of high northern origin, and venerated milk-eating Scythæ. What could these tribes be but Finnic or Gomerian Celts, who, in the east of Europe, as in the west, were fused into later and more powerful tribes, with far less resistance than is often shown when kindred nations oppose the pretensions of each other?* Hence races of Finnic origin passed, in antiquity, by conquest or mutual consent, into Celto-Scythæ and Pelasgians, so that in many cases it is impossible to trace the nations further up than to their second or third amalgamation. We find this substantiated by words belonging in common to the Etruscan, Basque, Ligurian, and ancient languages of western Asia: such, for example, as *Tar*, in Tarchon, *Brig*, in Briga, *Larch*, in Larissa, *Gur*, in Calagurris, Maitagurra, the *Durga* of the Pyrenees, &c.; and there are others, in the traditions of tribes that appear to have been connected by Finnic consanguinity, such as the Basque Haitor, the most early British Heytor, the first, if not both, being a denomination of a superior divinity, probably allied to Thor. There is a still more remarkable coincidence in the Navarrese and Cantabrian legend of the blue cow, lowing from the verge of the mountain forest, when national disasters were at hand, corresponding to the same doctrine anciently believed in the western parts of the present Hanoverian dominions; while both recall to mind the celebrated Indian mountain peak of Gho-Karma (the moaning cow), which, if it have a geographical position at all, must be the same as the seat of Mahadeo, at the source of the Ganges, also known by the name of Himavahn. These and other Finnic and Oriental elements, known to exist in the Basque as it is now spoken, justify the claim we make of that ancient race as originally appertaining to the intermediate stem now under consideration, more par-

* The river Alpheus bears a Finnic name, for Alf Elf, in Lapland and Finland, still denotes a torrent, and, it may not be amiss to observe, that Eric Erk, in Swedo-Finnic, is still a proper name, always considered a synonym of Hercules. The Heraclidæ in fact were Finnic Goths.

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ticularly as among the present inhabitants of France there are still extant the wrecks of tribes (the Cagots), which, from the first Celtic invasion to the present time, have never been acknowledged to form a portion of any, though the vulgar is willing to believe they are a residue of Arian Goths: which opinion, even if it were correct, would not much remove them from a Finnic origin.

We may associate with these, also, the human ossuaries in the caverns of Guienne, in the vicinity of the river Lot in Quercy, described in a former article; for they indicate a mode of disposing of the dead generally more careful than the Celtic; and from the more common absence of the skulls, and the regular packing of the extremities in layers, an argument may be drawn to show, that they are second and final deposits of the departed of a race, whose first mode of preserving them was to have the bodies sewed up in skins, hung up for a given period in trees, and then buried, often with a stag's horn by the side; a practice long in use among the Finnic and Gothic nations, and still followed by kindred tribes in both Americas.

These deposits, in the south of central France, have still, on the mountain above them, the ruins of rectilinear and curved defensive works, not like those of the Gallic tribes; and as they are in the vicinity of the Basque territory, it is likely that a kindred race was the owner of the soil before they were subdued or expelled by the progressing Celtæ. It is most probable, that although the Finnic people spread over Europe, their movement from the east was in general coastwise, and from north towards the south; ascending great rivers from the sea, and in some cases only forming considerable communities. Hence, in Europe and the high north, they are, with scarce an exception, fish-eaters, boatmen; never riders; and only graziers, not cultivators, in the south, when secure from the nature of their location; but even then still substituting osier and willow branches for many purposes of domestic utility; for such is still the practice among the Basques as

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well as the Lowlanders. They seem, indeed, scarcely to have been capable of successful resistance against Celtic invaders, in their more pure stunted growth; and that their physical strength was only on a par, and sometimes superior to them, when they were united with the giant forms of Yeta or Gothic origin, who no doubt lorded it over them, but certainly had also protective inclinations. Now tribes of this class, independent of immediate rulers, are constantly found to accompany the smaller race, as in the Pyrenees, where the Gascons of low stature have the stalwart Cantabrians for neighbors and kindred; and, again, where the first mentioned form of man is no longer traceable in history, the second is readily detected by names which always have reference to giant statures, as we have already remarked of the Tyrhenians, &c. So, again, in the swampy islands (paludes) of ancient Flanders, a small race seems once to have resided under the early protection of the Frieslanders, Vuriesen and Huinen, both denoting giants in the Theotisk dialect of Belgium, as it was spoken in the time of Charlemagne.*

Huin, pronounced somewhat in English with the sound of *oi* in coin, gives Hoin, which immediately reminds the reader of the name of the Huns, who are now admitted to have been an Ouralian Finnic people, allied to the Goths, and sweeping with it, in the train of temporary conquest, several hordes of Mongolians from the east, whose strange aspect misled, or suited the vituperative dismay of Anna Comnena, and the Greek and Roman ecclesiastical writers of the time, who had little better than abusive epithets to oppose to the conquerors.

* There is an imperfect vocabulary of this form of the old western Teutonic in Olivarius Vredius, Hist. Comitum Flandriæ, together with some fragments of Solomon's Song, &c., in the same. Two centuries after, it was nearly similar to the Anglo-Saxon. The present dialect of Flanders still contains many most ancient Theotisk words disregarded in dictionaries. But the examination of the whole question is well worthy the attention of English Saxon scholars.

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The Ostrogoths were associates of Attila, whose name was held among them in high honor, for we find it repeated in the list of Swedish kings. It is conspicuous in the oldest German Heldenbuch, and the Goths or the Lombards brought it into Italy, where Azzo and Azzolino, mutations of Atzel, the Teutonic form of the name, are prominent, chiefly among the Ghibeline nobles, as is naturally to be expected in civil contests between the northern and Italian races.

The early alliance of the Finnic stem with the Gothic nations, besides the community of proper names, is still more evident in the mythical list of their progenitors, where the denominations of Geat and Finn are recognized by all the nations of the north-west, including the pagan Saxons of the east coast of England, who, in the poem of Beowulf, denominate themselves Geats, not Saxons.* On the north of the Baltic, reminiscences of the juxtaposition of the dwarf and giant races are abundant. Their contests and intermarriages are recorded in sagas, in several cases recompositions of more ancient documents, though passing at last into mythi, in a land where Laplanders still exist; and the conquering race in the southern portion is even now a stalwart people. What they were in rude antiquity is often historically marked; and very recently a letter from Professor Nielson announced to the Royal Academy of Stockholm the discovery of enormous human bones, accompanied by flint arrows, bone spear-heads, and the remains of horses, stags, elks, and bears.

THE BASQUES.

From the foregoing remarks, we believe ourselves justified to claim the Basque, Esquara, or Vascon people, to be the most southern of the Finnic stem in Europe. Coming up the

* See the important preface to Beowulf, in the excellent version of the original, by the learned John H. Kemble, edit. 1837.

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Garonne from the sea, it evidently spread towards the western Pyrenees; for the ancient frontier fastnesses of these tribes are historically unknown to the north of that river, excepting Calagurris, now St. Lizier, on the Salat, an affluent at no great distance from the stream where it is but first emerging from the mountains. The nation extended, on the south of the great ridge, to the Ebro, where a similar fortress, likewise denominated Calagurris, now Calahorra, commanded the upper Ebro. The capital was Pompelo, in the district of the Husia tribe.

Denominations of places and early superstitions indicate a Finnic western Caucasian origin. In Spain the Cantabrians were always celebrated for valor, and for arresting the conquests of the Moors, after the overthrow of the Goths; perhaps evincing, by their support, a community of origin, which they alone possessed beyond the Pyrenees. Aided by these hardy mountaineers, the Goths resisted the southern invaders, and in the Asturian mountains formed the little kingdom of Oviedo, which soon again expanded into that of Leon. It was in the defiles of this region, that the Franks, under Charles Martel, or Charlemagne, are related to have lost their rear guard, with Roland, and nearly all the heroes of the French cycle of romance. They fell at the pass of Roncesvalles — more, it is said, by the swords of the Asturian mountaineers, than by the Arabian cavalry, which are not likely to have been suffered to enter the mountain fastnesses of a small, warlike, and justly distrustful Christian state. On the north of the western Pyrenees, the Vascones, though early overlaid by Celtic tribes, the Tarbelli, and it may be the Venomanni and Aturi, were nevertheless of the same nation.*

* Consult Surita. Both Quintilian and Prudentius were natives of Iberian Calagurris; no doubt sprung from Roman colonists.

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THE LIGURIANS OR LLOGRIANS.*

In the eastern Pyrenees there was another people equally foreign to the Celtæ, with affinities which appear to unite it with the Finnic family; and it was called the Ligurian and Llogrian (the Llogrwys of the Celtæ); probably originally the same as the Greek Locrian, which had three tribes in the mountains of northern Greece, and the colony of Osolean Locri in Italy. All these came from the north-east of the Euxine, where they had been neighbors of the Achai. They had a legend of their first king's son having been rescued from a wolf by a serpent. Naupactis, the present Lepanto, was their seaport; but originally they had been savages, clothed in the skins of wild beasts, and having their wives in common, like the Vascones. They had names and terms which were likewise found in the Tyrhenian. Already, before the arrival of the Gauls, properly so called, this people having extended between the Cevennes and the sea-coast, up to the mountains of Spain, was encountered by other marine tribes, when, leaving some clans in Corsica, in the Hieres Islands, and among the Iberian families occupying the water Sycanis† (the lagoons along the coast), they retreated to the Cottian

* They were acknowledged to be Hyperboreans by descent, since Eschylus makes Prometheus instruct Hercules in the road towards the garden of the Hesperides: he must pass Caucasus, then encounter the fierce and innumerable Ligurians, and arrive at a high northern latitude. His imagery looks like an extract from Finnic sagas, the Calewala, or Scandinavian Edda. Bailley notices this passage, see Strabo Geogr.

† Not unlikely a Teutonic word, *Seekant*, border of the sea. This term would have no meaning, but for the lagoons along the coast, only separated from the sea by a continuous belt of shingle. Sicani, Sitaceni, and Siculi, in this case, must mean maritime, coast men, water or sea men, the same as Cantii, in Britain. Yet these names again came from the Euxine Bosphorus, and, according to Philistus, cited by Dion. Halic., the Siculi were of the same race as the Ligures, notwithstanding that Timeus named them aborigines of Sicily.

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Alps, the centre of its national strength, where the present Piedmont was in its possession. On the side of Italy, the capital, Ticinum, now Pavia, was in the district of the Lœvian tribe, with the Libuans, on the banks of Lake Garda, and the nation extended to the vicinity of the present Avignon, where Strabo places the Celto-Ligurians. They long were bold seamen, and a brave and industrious people, defending their liberties against Roman encroachment during forty years, before their last tribe was subdued. They had been early disturbed, both in the Alps, and on the coast, by Gallic invaders, who absorbed or forced settlements among them. It was from the Ligurian tribe of Legobriges, about the year B. C. 600, when the Phœnician and Rhodian trade had declined, that the Phocian Euxinos obtained the cession of the port of Marseilles, by means of Petta, daughter of the chief Nannus. The transaction is related with particulars, both by Aristotle and Justin; but the fact itself indicates the consanguinity of these tribes with the Grecian Locri, who were neighbors of the Phocians.

By the eminently marine habits of this people, and their migrating disposition, they were, it seems, scattered in various regions; and nowhere, except at the head of the Adriatic and in the Alps, had national consistency. They were of common origin with the Istrian, Liburnian, and other tribes, who appear likewise to have claimed a Colchian descent. Their ships, from the humblest raft, and the coracle of three and a half ox-hides, sewed and stretched over a frame-work of willow, changing successively to lintres, logs, longs, Liburnic-biremes, caracks, caravellas, and finally to ragusas or argosies, were in general the models of those adopted by other nations, and *Reul* was their most ancient guiding star at sea. But, with the exception of the Liburnians, they were no longer mariners than the swarming period of their departure from Asia; for in subsequent accounts we find them move by land; and if they were the same nation as the Llogrwys, or Llogrians, of

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British legend, they had once, at least, a tribe seated on the Llobregat in Spain, and no doubt were in part the migrators who, on retiring northward, crossed the Cevennes to the head waters of the river Loire (Ligeris), which they decorated with their own national appellation. Here they were joined by another, the Illyrian, Venetic, Henyd, Wend, or Gwyned tribe or association, for it may have originated entirely in the commercial spirit of the more enlightened persons of several tribes, and even whole clans.

The Illyrian Alps, placed between Pannonia and the Adriatic, contain a variety of nations, which, like those of Western Caucasus, might claim to be aboriginal, if they also were not known to have been colonies, which, in remote ages, came up the Danube, and were subsequently driven to the mountains, while others passed through the Bosphorus from the Black Sea, or came from Asia Minor, and skirted the coasts of Greece. Strabo mentions not less than eleven tribes, some of which we find again on the coasts of Colchis, and others are now admitted to be Scythian and Finnic. The Veneti, Carnes, &c, belong to this group.

THE VENETI.

According to their national tales, plainly the invention of later ages, the Italian Veneti pretended to be a colony of Trojan fugitives, under the conduct of Antenor. After they arrived in the west they warred with Servius Velesus, king of the Euganeans; and their records hinted at a consanguinity with the Heneti of Paphlagonia, where they were horsemen and hired soldiers, and, headed, it is said, by king Pylemenus, they served Priam in the Trojan war. But they were thrifty dealers, since to them is assigned the introduction of mules in the markets of Asia Minor. The Greek poets spoke of their country, situated at the mouth of the Eridanus (the Po), perhaps also the Rhine, where the Celtæ dwelt; and Virgil was well

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acquainted with their legends and assumed descent. Industrious, like modern Armenians, they had successively demanded the protection of the strongest power near them. At one time the Ligurians, and subsequently the Romans, took upon themselves to defend their interests from Gallic aggression. Their capital, Padavium, now Padua, probably was one of those neutral marts necessary to barbarous nations; it was older than Rome, and, in the time of Tiberius, the second city of Italy for extent and riches.

They were, Herodotus asserts, Illyrians; and Servius names Œnetus, or Wenetus as one of their kings, assigning them to the same stock as the Liburnians; also the Tauricians, who, like the Ligurian Taurini, had no doubt a Taurine, or Tor god; the Vindelicians, still more allied to the tribes of the Baltic, with the Brennians and Genaunians; all at one time derived from the northern shores of the Euxine. Beyond the Liburni and Veneti, the Sigynnæ were the only people known to Herodotus, as far as the Ister (Danube); but as this name in the Ligurian tongue merely denotes traders (Zigeuner,* pedlers, tinkers), we may believe that it was a denomination of the Venetic merchants, who went overland to that river, and thence traversed Germany to the Baltic, where they had tribes of kindred origin. Therefore the whole may be claimed as of Finnic source, collectively originators of the numerous markets (nationally Ventæ) existing before the extension of the Roman sway to beyond the Rhine and Danube, like a commercial net-work over the west of Europe. In Italy the word Forum was substituted for vent or guent by the Latin nations, while they left Venta to be used beyond the Alps. These were what are now known by the name of Scalæ among the more modern

* It may be remarked, that both the present Armenians and the gypsies Zincali (Zigeuner of the Germans) have a cranial structure very much resembling the high northern tribes of Finnic Hyperboreans, and are similarly nomads and soothsayers, sharp in dealing, and ever, like the others, averse to war.

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Italians; Markt, Fair, and Kioping, of the Gothic nations. The existence of these emporia explains how the classical ancients came so early to be acquainted with the amber coast of the north; for, in the third century B. C., Pythias, a Grecian traveller, and Divo, a Bithynian, at a later date, visited the present provinces of Pomerania and Prussia; and though the work of the first named is lost, quotations remain sufficiently to establish the attention his narrative must have deserved.*

THE ETRUSCANS.

THERE was, beside the two nations of Upper Italy here noticed, a people more ancient than either, having in the language it spoke roots of Teutonic still more abundant; which, although it was believed to be derived from two widely separated sources, still bore the same import in the designations of both their names. One, the Rasenic, it was asserted, had possession of the lower Tridentine Alps, when the other (the Tyrhenic) came up by sea, it is said from Tyrra in Lydia, and, landing at the mouth of the Po, built Adria or Hadria, on the margin of the river. The present town stands more than twenty feet above the original foundations, and ten above that which existed in the time of the Romans; facts which, taking the accumulation of the soil near the mouth of the river to have advanced at an equal rate, would give about 3600 years

* Pythias, quoted by Pliny, flourished about 330 B. C. He visited the amber coast, and notices the Guttones on the Montonomon estuary (he Frische Nährung), at one day's journey from the island Abalus (he present Palmeniken), where amber was cast up by the sea. Divo is mentioned as having visited the Baltic in the reign of Augustus; he is quoted by Jarosluw, domprobst of Ploezk. There is in Spon even an attempt to figure Hyperborean hunters, one riding a stag (reindeer) being shown galloping towards a net. The work of art is from a bas-relief, found at Etruscan Anxur.

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for the arrival of the colony which first commenced the city. Such a period is consistent with the first arrival of the Celtæ in Gaul.

The Semi-Finnic Tyrheni were certainly allied to the Thraco-Pelasgians, and spoke a dialect not yet clearly ascertained; had at a very early period an alphabet, which, although primarily also of sixteen letters, neither coincides with the Cadmean nor with the Roman.* They were in possession of a growing civilization, such as smelting ores, and casting in brass effigies and bas-reliefs of divinities and men (they could even plate them with silver and gold), and made fictile vases variously colored; whereon, either in consequence of captured Greeks being among their early slaves, or from causes not known, there are found depicted Hellenic Mythi, often with circumstances not mentioned in the Greek poets, and yet extending over the whole geographical surface of their fables, from Palestine and Asia Minor to Sicily, and even to Gades in Spain. Like the Pelasgians, they built walls of cities with stones of enormous dimensions, generally in courses, with more regularity; but, unlike them, they had frequent subterranean passages, or galleries of mines beneath their cities, the use of which is not yet understood. They constructed their tombs usually in caves, dug with skill and considerable beauty, so well concealed and blocked up, that many have been discovered only in latter times; and these are found to have been adorned with sculptures and paintings of no mean artistical merit. The national mythology was however totally distinct from the Greek or Roman, and approximated, or was identical with, that of other Finnic tribes. Such were the Falsen of Etruria (Falaces), pillar-gods, usually represented in pairs, once well known to the pagan Scandinavians,

* It appears that the Greek alphabet never contained at one time all the Etruscan forms, and they continued to write from right to left. It is probable the early Celts wrote with the same letters.

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the Laplanders, and the Finnic Lithuanians, and still found in the houses of the Tschutski of the north-east of Asia.*

Being brave, and skilled in the arts of life and war, although they had contests with, and expelled the Kerkopes (by the name evidently a dwarfish race, which fled to Sicily), it is evident that they were not numerous during their occupation of the present Lombardy; for they withdrew to make room for the Ligurians and Heneti, and were driven off still further by the Gauls, their strong walled cities being all on the Mediterranean side of Upper Italy. Rome itself was partly an Etruscan colony, and owed most of the elements of its greatness to the institutions and example of that people. It is to be regretted that these tribes, ruled by independent Lucumons,† wanted national unity when they were strong; for what the barbarians had begun on the north-west, the Romans finished from the south-east, the whole nation being gradually absorbed by the conquering republic. They were manufacturers, merchants, and navigators, till they were worsted by Greek assailants, coming from Sicily, and by the Phocian colony of Massilia. Yet it is to the objects of barter which they themselves, or the friendly Venetic traders, or subsequent rival Carthaginians, Greeks, Romans, and Gauls, carried down the Loire, or across the German territory to the Baltic, that we must refer the bronze effigies, heads of standards (?), helmets, shields, arms, and even coins, often containing Greek mythological subjects, but bearing scarcely any tokens of

* See Ossian, Ca-lodin, "Like the pillars of Lodin at Sliva." — Duan II. Were these perchance also the same as the Finno-Teutonic Alces, Alkes, Alsen, brethren divinities, with a priest clothed in woman's garments, and honored, without images, in a wood? It may nevertheless be suspected, that elk or stags' horns represented them, as reindeer horns are still used for idols by Laplanders and Samoyeds. Ailsen, on the Weser, may have been a local city for them, and the meaning might be perhaps taken from Elke, each or both. Certainly not Castor and Pollux, in the classical view of these meteor gods.

† Lucumon, Teutonic Lachman, man of law, judge.

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Greek skill; for all these have been found in Gaul, Britain, the Tyrol, in the waters of the Baltic, and even in the bogs of Ireland.*

The three nations, Etruscans, Ligurians, and Veneti, called the river Eridanus, which each, in turn, had possessed, by the names of Podan, Podines, Podineo (the Po), the terminal particle being still abundantly found in certain localities of Lapland. To these we might join the kindred Illyrian tribes, both on the Danube and the Adriatic, the pirate Liburni, with their fast rowing galleys, the Carni, and other clans, as before shown, mixed even with the Hellenic race; and all, like the true Finnic people, with remarkable veneration for the dead, for sorcery, apparitions, and human sacrifices. But for the present these circumstances may be passed over, as we shall have occasion to revert to them in the sequel.

Few vestiges of the Finnic people can now be traced in the hill and mining regions of middle Europe, excepting perhaps in the Alpine, where the name of Tschudi is still preserved in one or more families of some distinction; and to the west, in the Highlands of Scotland, or in northern Ireland, where the significant name of the Fion, Fingall, Fingal, represents a marine tribe, avowedly acquainted with Lochlin, Norway, Friesland, or more properly, the eastern portion of the Baltic;

* Such is the bronze group, eight inches high, representing the Centaur Chiron, with young Achilles on his back, in the act of drawing his bow, and a dog leaping against the fore-leg of the horse part, the whole standing on a scroll with a ferule, evidently intended to support a lance. It was found near Sidmouth, much worn by ages of attrition in the wash of the sea. Again, a winged figure, sounding a trumpet, having one knee bent, the other resting on a globe, supported by a ferule, eight inches high, found in the bog of Allen in Ireland. Also numerous specimens of small brazen two and three horned bulls, ensigns of the Sequani, Taurini, &c., bas-relief figures of champions, in copper, found in Tyrol, and silver elastic spiral weighing-scales, with Roman stamp upon them, found in the Baltic; all, excepting the last, bearing evidence of Etruscan or barbarian workmanship.

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by its name clearly assuming the mixed origin of Finn and Gael. It was one marked as miners and sword smiths, personified in the name of Luno, and, moreover, a tribe with Finnic, not Celtic, religious superstitions. These qualities ally the Fion closely with the oldest Cymbers of the north-west, who were themselves Scythian-Celts, which is the same as Finns of mixed origin with northern Celtæ.*

Further north, from Denmark to the extremities of the Baltic, Teutonic Finns were spread all along the shores of that inland sea, perhaps even in Jutland, the best known still existing either entirely Germanized, or only so in their personal appearance. In Scandinavia, they were miners from remote ages, wherever the topography of the land gave assurance that ores were beneath the surface. On the German side, fishermen, navigators, pirates, and merchants, collectively known, in a subsequent period, as Venden, Vandals, Vuidini, having every appearance of a consanguinity with the Veneti on the Adriatic, and exchanging, by their means, amber and peltry with the nations of the south, through the interior of Germany. The city Wineta, on the west of the Isle of Usedom, in the subsequently known kingdom of the Obotritæ,

* The Creon dynasty acquired supremacy over the Gaelcoch, or Red-Haired Celts, in the second century of the Christian era. From the fall of Galgacus, four generations, Trenmor, Trathal, Comhal, and last Fingal, ruled, when the power appears to have passed to the Maeatæ, or to the family of Gaul, the more ancient head of the people. During the Creon dynasty, the conquests of the Romans were first arrested and then thrown back behind the wall. But whether the name of Fingal be derived from Vindgael (head of the foreigners), may be questioned, though all the Gallic nations then in the north were strangers. There were iron works in Britain before Cæsar's invasion, as is proved by the chains and fastenings of the fleet he defeated on the coast of Gaul. The bardic similes still notice "the hundred hammers of the furnace," "the stream of metal from the furnace," &c. There is even the shieling of Glenturret, called Renna Cardich, or the smith's dwelling, with remains of cinders, scoriæ, and ruins, all evidence of antique iron works.

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but now sunk beneath the sea, was the first and greatest emporium of the north, having paved streets, temples, it is said, with brazen gates, and a vast population of strangers and nations of various origin forming the citizens. Wineta, perhaps the typical Vana-land of mythic sagas, was the parent community, whence Arkona, Jomsberg, and Jollin originated. It was the most distant of the Venetic commercial establishments; others being at Venta Allobrogum, now Vienne, on the Rhone; Bienne, at the Vendoni Campi, near Zurich; at Venda, now Augsburg; Vendobona, now Vienna, on the Danube; Vannes, on the Loire; Guines, near Calais, probably also at Gwent or Vennemare, near Ghent; at Vingium, now Bingen, on the Rhine; Venta Belgarum, now Winchester, and Venta Icenorum, Caer Gwent. They extended even to Ireland, where Ptolemy places the Promontorium Venicinum. They repeated, in this manner, the commercial policy of the Phœnicians, whose name may not be unconnected with the Veneti, and anticipated what the Baltic Vandal Lombards again restored, in the middle ages, under the form of Lombard streets, in most commercial cities of mediæval Europe.

They had a commercial intercourse through Russia, and with the Greek colony at Olbio, on the Borysthenes. It may even be no chimerical supposition, that it was from the Baltic cities that the Hyperborean annual donation came to Delos, which Herodotus and others have noticed. According to Took, the Permians had a barter trade with the Indo-Persians, by the Volga and Kamá, to Tscherdyn, on the Kolva, where they received the goods, and carried them up to Petchora, in exchange for furs. Thus the presence of Hindoo opinions and idols may be accounted for, in the poems and antique remains among the Finnic nations. The entirely foreign commencement of the above-named cities is proved, among other indications, by their having alone, of all the Baltic nations, temples for national idols while other Finns had only sacred hedged

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ecalities for their divinities and religious ceremonies.* As already stated, there were two distinct races successively inhabitants of Wineta, and the other neutral trading communities on the south of the Baltic; the first, composed originally of true Veneti from the Adriatic, strengthened by Celtæ from the same quarter, — by Roman outlaws and fugitives, — by Celto-Scythæ, that reached the north by ascending the Sarmatian rivers, and by Yeta or Goths from the Lake of Ladoga, all cemented together by marriages with Finnic wives, a practice that commenced at least three centuries before the reign of Augustus, and which finished by forming the tribes denationalized by all the immediate people around them into that power, which, under the name of Vandals and Venden, penetrated, about five centuries later, southward to the seat of their relatives or progenitors.† A second community formed after their departure, and retaining only a part of the former population, was composed of Finnic Sarmatians still more heterogeneous; for the first, arising out of a congregation of merchants, who had taken wives from the Finn or Sclavonic resident tribes, formed a homogeneous community, without tribal distinctions, and assenting to the same pagan divinities; but the second was an assemblage of clans, which retained their distinct nationalities, lived in separate quarters, and even distinct castles, until they rebelled against the authority of the magistrates. These people were known to the Huns by the name of Vuinid Fulce, the same as the Celtic, Wenid Volc, and Theotisk Wenden Folk, and the acceptation of Wend or Vend is still retained in the modern Belgic Vent, a man of superior importance, a wanderer, a travelling merchant. Vend, in Gaelic, a head or chief; the fusion of the Finnic Yeta with the

* Mone gives detailed notices of the nationality, religion, and institutions of the Finnic nations of the Baltic. See "Geschichte des Heidenthums in nordlichen Europa," vol. i.

† They first appeared in arms against the Romans, in the reign of M. Aurelius, A. D. 173.

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Celtic race being perceptible in various recorded names and events. Thus, in A. D. 563, the Winetans elected for their king Samo, a pagan Sennonian Gallic merchant, who continued his reign during thirty-five years. A Finnic Celt, of great ability, has, during the present generation, again found an elective throne in the high north. The Boii, a tribe of Celto-Scythæ, wandered from Gaul to Bohemia, perhaps a pristine home; others resided, according to Lelewel, in Gallicia, all before the Christian era; and therefore Gaul was not unknown to the Vandals when they removed to the south. We trace the Celtic nationality still further, in the name of Wallinische Werder, the locality where Jomsberg, one of the sister cities, was built; even at Dantzig, the same influence was perceived in the appellation of the river Rodaun. Historically, it is found in the bond of long-enduring neutrality which the Winetans, then called Vandals, maintained among themselves, the Goths, Suevi, and Burgundians, during their offensive wars against the Roman empire; and their power, in the facility which Stilicho, a native Vandal, found towards the attainment of the first honors of the empire, as well as for raising up enemies against it in his own cause. Political considerations may have prevented the Vandal inroad from proceeding beyond Pannonia towards Italy. The Illyrian Veneti probably bought off the invaders, and pointed out the greater facility of conquests in the south of Gaul and Spain; for, being inferior in numbers, and less national than the Goths, as subsequent events in the peninsula of Spain attest, they were well advised to pass on, and, when followed, were even then compelled to retire to Mauritania, where Genseric took Carthage in 439, and subsequently being called over to Italy, he plundered Rome in 455, but only to return to Africa. Although, according to Witichindus, Wineta was then flourishing on the Baltic, the Adriatic Veneti began at Venice again to form a central commercial emporium, and their numbers were soon so great at Constantinople, that the blue faction in the hippo-

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drome,* representing the manufacturing power, wholly in their hands, gave cause for serious alarm to the government; even to a degree that ridiculous measures were resorted to, such as secretly enclosing the effigy of a blue Veneta in the brazen hoof of the winged group of Bellerophon, in order that by means of this talisman the Venetic superiority might be counteracted.

In the Baltic, however, the more recent mixed communities of Winetans, now first called Aestii, or Ostmen, began to droop by internal dissension,† and by the revival of trade in the south of Europe, till the great storm of 809, when the city being partially submerged, and Jomsberg nearly ruined, broke their power; and though they made several gallant stands against the piratical rapacity of the Northmen, Wineta was sacked by Hemming, king of the Danes, leaving the wreck of former industry to survive only until Henry the Lion, Duke of Saxony, led a crusade against the Sclavonic tribes of the coast, and commenced their absorption into the German race, leaving the completion of the task to the zeal of two religious orders of knights, which effected their conquest in the thirteenth century.

The Finnic races, originally more pacific, industrial, and sedentary, were often broken through by migratory hordes from the east; their colonies, towards the south, were isolated or absorbed, sometimes so changed by intermixture that the language became pseudo Gothic or Theotisk. Thus, very anciently, it becomes doubtful whether the Suciones (Swedes) were of the last mentioned or of the first race; most likely they were mixed; for Suomi, the proper name of the present Finns, resembles the old Scandinavian appellation.

Of the Sclavonic Finns, Prussian, Livonian, Esthonian, Per-

* Blue was the sacred, and still is the most esteemed color of the Finnic nations of the north, as well as of the Illyrian Veneti.

† Winni or Wenden, Heneti or southern Wynetæ, Suliones, Slavi, Rossi, Cambrivii, Circipanni, Rutheni, Greeks, and Jews, began to fortify separate quarters against or for Christianity.

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mean, Lithuanian, and Courlanders, we need not give details, which are already generalized in Balbi (Atlas Ethnographique), and reviewed with as much learning as detail in Mone,* who describes, circumstantially, the national traditions, gods, and religious worship of the different nations, and, among others, of the Prussian. It is remarked, that no people of the north was once so rich in literary monuments; for though a vast quantity of legends and traditions still exist, there were thirty-one national chronicles consulted by Hennenberger, all of which have perished, excepting five, it is supposed by the contempt of the Teutonic order of knights, and by the neglect of the kings of Poland, who shared the ancient archives. From the above, it is clear, that a vein of indigenous civilization had worked on the Baltic, perhaps drawing its remote source from Bactria, by commercial Colchis, totally distinct from southern lore, excepting in the degree which Greek and Roman intercourse might have afforded, or Jewish wanderers, who early found favor among the Finnic Tahtars of Western Asia, may have introduced.

THE FINNS OR SUOMI.

Crossing the Gulf of Finland, we come to the Suomi, Finnelap, or Finn people, still so called, which, however, notwithstanding the rocky hills, innumerable lakes, and many woods wherein it lies concealed, the three sealike gulfs which surround it, and the rigorous winters of that latitude, has still not escaped perhaps more than half hybridism; for the northern portion

* "Geschichte des Heidenthums in nordlichen Europa." The abundance of records and manuscripts was here, no doubt, as elsewhere, the consequence of national intermixtures. King Vanland, who wedded Drifva (trade), daughter of old King Snöe, may represent the peaceful mercantile intercourse with the Venetic cities. Snöe himself gives an idea of ermines and peltry, or at least of the high latitude where the trade was carried on.

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alone can be considered as typical of the semi-intermixture of the Hyperborean and Caucasian stocks. It is there alone that the Lapland tongue finds so much affinity as to amount to a decided similarity; there the great distinguishing mental characteristic of the whole subtype is observed, in the permanence and generality of iron mining propensities; the godlike office of the forging smith, the constant poetical allusion to gold, silver, and iron, are prominent; and all the sorcery and incantations of the Laplanders, short of their magical drums, even now in vogue, — practices alike common to the kindred Shamans of Asia and the Angekoks of Arctic America. Although the Finnic race repudiates in national pride all consanguinity with the Laplander, the northern portion almost equally reviles the southern, because it is less conversant with the old nationalities, and is more generally, if not altogether, tall, straight, and fair-haired. On examination, we are assured that there is equal distinctness in the cranial structure between them; but, as yet, no account of a thoroughly scientific inquiry in this question appears to have reached middle Europe.

They are, moreover, accused by the Swedes of being more malevolent, a greater proportion of Finns occurring on the list of malefactors than of natives of Sweden, when both countries were under the same crown; and though the linguistic affinities were described, and the religious dogmas were supposed to be sufficiently well known, the recent discovery of a Finnic poem, named the Kalewala, shows that the sources of research in the north are far from exhausted, and that their harmonious language was anciently more polished than has been thought.*

The ancient Finns were, however, mixed with Yeta races at a very early period; since a peaceful union between them is

*Kalewala, or the adventures of Waina Moina, the god of verse, a Finnic epic poem, in thirty-two runas, published by Professor Loenroth, a Finn by nation. There is a French version of it by M. Léouzon le Duc, 1846; but it is strange we hear of none in German, though the work is regarded as perfectly genuine.

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clearly shown, in the names of Finn, Suen or Suin, that is, Sweno and Atzel, or Attila, which occur both in the lists of Swedish kings, Lombard chiefs, and in part among the Germanic gods. The physical Jotun (Yeta) appear to have been the giant masters of this people, till they were vanquished by the Gothic Asi, and driven to live in rocks and caverns, affording a foundation of that dualism, afterwards mythologically applied for the national runes, which even do not conceal dislike to the Asi, and felicitously represent them as destined to be ultimately vanquished; for the basis of Scandinavian mythic lore is Finnic.

Fornjoter, the King, progenitor of the Finnic people, bears not a proper name, but an appellative of distinction. His altars, overthrown by Thor, show a system of worship destroyed by the Asi, but nothing to disprove that the whole did not come from the east; that region whence their mythological kindred, the Jotun, are to arrive from, in the ship Nagelfar, at the last day of the world's existence.*

Immediately on the north of the Suomi, are the tribes of Laps, who speak a dialect of the same language, although they are almost pure Hyperboreans. The somewhat equal intermixture of this race with a Gothic people constitutes the real basis of the Finnic sub-typical stem, since others, more to the eastward, with Slavonic, and again with Caucasian Yeta tribes, produce the same result. Thus, it may be assumed, the Hunnic power was likewise generated in Asia from eastern Caucasians mixed with Hyperboreans; for, when interunion occurs, the Caucasian type so readily becomes superior, that it is soon doubtful whether any Mongolic blood can be externally observed to be present. This is in Asia the case with the fair Ostiaks of Siberia — the Wotiaks and Tscheremisses — the Mordwines and Wogules; and, in a less degree, among the Permeans or

*The Finns, like the American Savages, have feasts of the bear hunt, mystical notions of his origin, and, like them, give him by-names, believing in his superhuman knowledge.

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Syrians of Russia, and even the Ghoorkas of the Himalayas are accounted Zwergi, or of dwarf race.

THE HUNS.

The Huns, originally from Yoguria, being kindred of the Wogules and Ostiaks, held the region between Tomsk and Tobolsk, till they moved westward to the confines of Europe. De Guines and Klaproth differ on their origin more in degree than fundamentally. They are first noticed in the time of Augustus, by Dion. Periegetes. In the second century they occupied the extensive region between the Caspian Sea and the Borysthenes, having propelled or incorporated the Gepidæ and the eastern Goths. They advanced in A. D. 375, to beyond the borders of the Danube, and became the most formidable power of Asia and Europe; for, in the fifth century, under Attila, they had sway from the borders of China to the Rhine, his capital city being Buda, or Hunnic Ettelvar. They ravaged with their armies all Germany and the north of France, and penetrated to the gates of Rome. At that period most of the nomad tribes of Asia were in his service; hence the nation might have been called ferocious and ill-favored; but here also the Caucasian element had already so greatly influenced the external form of the Ispans, or higher chiefs, that these were not inferior to any other privileged races of Europe.* The proper

*The goat face of Attila, with horns and beard, represented on a Latin medal, together with the assertion that he called himself "Flagellum Dei," is mere monkish quibbling upon the names Atzel, Attel, Attalus, carried to the Hebrew Atzail, a wandering goat; hence in Arabic, Azalin, Satan. Attila's profile on a coin is shown, with lengthened features, a pair of wings at the shoulders, and his private symbol ⚔ occurs beneath the figure of a horse on the reverse, so much in the manner of Hindoo Bactrian art that there can be little doubt of its authenticity. He died in 453. A coin, given for one of Attila, or Ath-tila, king of Sweden, circa 548, is more properly applied to the Hunnic sovereign; for he is figured on horseback, carrying in his hand the trident or tripula, a real Bactrian weapon; yet there he is styled Gauta og Suethiot Kongr. See Genswolff runa Kefli; also profiles of Hyatili princes among coins in Wilson's Aria Antiqua.

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names, Balamir, Bleda, Iring, and Atzel, the Lombardy Atzo, Ailfred, and other words, show the Gothic element pervading usages and objects of social convenience; and the courts of their kings, if the old Burgundian (Frankish) legends may be credited, were as hospitable, as polished, and as splendid, as those of the Greek and Latin sovereigns of that time. The Huns subjected or associated the Haiatili, white Huns, Hephtal of the Armenians, a partial kindred, with the Yuchi and Sacai, who came from beyond the Oxus, and were seated in Meweram and Khawarism, with the capital Gogo, probably Kerkeng. They invaded Affghanistan, Scinde and Persia, in 428; but, driven back by Baharam-Ghor, were extended on the north of the Caspian; but, if the conjecture of Professor Wilson be admitted, they were still powerful east of the Indus, since they took and destroyed the vast city of Valhabi, in Gujrat, in the year 524 of our era.

When the Hunnic empire had declined, we find a large force of their cavalry under the command of Iliphred and Apsich, in the service of the Byzantine emperor, forming the left wing of the army at the battle of Solacon, in the year 586, where Philippicus defeated the Persians.

Other Finnic nations, debris of the Hunnic empire, such as the Avares, became predominant in Eastern Europe in the sixth century. In conjunction with the Lombards, they destroyed the power of the Gepidæ, a tribe of Yeta, who had again risen to independence, defeated Sigebert, king of the Franks, and rendered the Bulgarians tributary; but, in the next century, revolting under the conduct of Conviat, these in their turn became puissant, and long held sway in Mœsia, on the south of the Danube.

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THE KHAZARS.

The Khazars, already mentioned by Armenian writers of the second century, were a nation both warlike and agricultural; and, being greatly intermixed with Jewish exiles, they changed from Budhism to the Mosaic tenets in the seventh century, and conferred the title of Ilake (king priest) to a Hebrew family, while the temporal authority continued in the hands of the Khagan. In 858 they became Christians, but forsook the cross to please the Chorasmians. They traded largely in peltry from the north, and in other wares from the south-east of Asia. Usually the allies of the Greek empire, their dominions extended from the Sea of Aral to the river Bogue. Their capital was Baliangar, or Attel, at the mouth of the Volga, and they having formed a portion of the Hunnic empire, and probably absorbed the Haiatili, appear to have built cities in Hungary, doubtless by colonists, or by establishing ventas.

THE HUNGARIANS.*

The Hungarians, or Magyar Toorkees, seem to have issued from the same Ouralian quarter, and were, with the last mentioned, formidable to the Khalifs of Persia, about the close of the seventh century. By the end of the ninth, they found

* The Byzantine writers view the Huns and Turks as the same; and, indeed, the names Huns, Hungarians, Unni Occidentales, Onoguri, Ugri, Ungri, Ongri, are all the same, or tribes of the same people. The Avari or Abares may have had a greater Caucasian element in their national origin. In the whole of the high region west of the Caspian, to the Euxine and eastern coast of the Mediterranean, as far as the Hellespont, it is difficult, if not impossible, to separate distinctly the Finnic from the pure Germanic and Celtic nations. Long before the historic age they absorbed a Melanic nation, which Herodotus called the Colchian in his time. The Pelasgi and Dorians were perhaps Lesghi, and tribes that went into Thynia, from the coast of Thrace, only completed a circle of emigration round the Euxine.

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themselves established in their present abode, where they incorporated the remnant of ancient Huns, still left in Pannonia. They long ravaged central Europe, until they became Christians in the eleventh, from which period they have been a repeated spoil of the Osmanlis. The Magyars offer another instance where the Finnic stem produces gigantic men; for the Hungarian grenadiers and the national heydukes are more generally of great stature than any other nation of Europe. During the time they resided near the Black Sea, they appear to have been in close friendship with the Zychi or Circassian tribes; for they have not only a great external correspondence of appearance, but the Circassian language, like the old Armenian and the Hungarian, contains a great number of Finnic words, and the Lesghi-Avares of the same mountains have many Hunnic proper names still retained among them.

It is probably to these tribes of pure Caucasians, or of hybrid Finns, that the Gog and Magog giants of antiquity, or rather the Haiguge and Magiuge of Curds and Persians so long the terror of south-western Asia, are to be traced; for the pass of Derbend, on the Caspian, was already, in remote ages, vainly closed by artificial defences, to keep them from penetrating to the south.*

The interunion of Hyperborean with northern Caucasian races constituting also, in our view, the Ouralian stem of arctic Asia, it follows, that in this place the Toorkee tribes, who have the same conformation of the skull as the bearded stock, should be classed with the Finn or Tschudic group, although they are known originally to have been Hyperboreans of the most deformed personal exterior, according to European notions. They have already been mentioned in the notice of

* Portæ Caspiæ and Pylæ Albaniæ of the classical writers; Derbend, gate of security, in Persia; Demir Capi, iron gate of the Turks. The Chinese wall, the Sassanian lines of Chorassan, and the Roman wall of Britain, were all constructed to arrest the progress of the same Hyperboreans of mixed origin.

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the Mongolian type, to which they were most strictly allied, so long as they remained unmixed.

THE TURKS.

Thus, the Atrak Turks, more especially the Osmanlis, differ from the other Toorkees, by their lofty stature, European features, abundant beards, and fair complexions, derived from their original extraction being Caucasian, of Yuchi race, or from an early intermixture with it, and with the numerous captives they were for ages incorporating from Kashmere, Affghanistan, Persia, Syria, Natolia, Armenia, Greece, and eastern Europe. Both these conjectures may be true, because the Caucasian stock, wherever we find it, contrives to rise into power, from whatever source it may be drawn, and therefore may in part have been pure before the nation left eastern Asia, while the subordinate hordes remained more or less Hyperborean in character; as, in truth, the normal Toorkees about the lower Oxus still are. All have, however, a peculiar form of the posterior portion of the skull, which is less in depth than the European, and does not appear to be a result of the tight swathing of the turban. Osmanli Turks are a handsome race, and their children in particular are beautiful. The Tschudic Toorkees, moreover, had in ancient times a Sabæan alphabet, written vertically from right to left, not brought, as De Sacy appears to believe, from Syria, by early Christian sects, for in that case it would never have been distorted to a Chinese mode of placing the lines. It is more likely the real ancient Bactrian form, one connected with the literature and science of remote ages, not to be so peremptorily rejected, because no other proofs of this kind of Runic or Ogham are now to be found in the region where it flourished; and the Sanscrit, more perfect, and more extensively dominant, supplanted it, even in Thibet. At a remote age, they came upon the Taujiks (original Persians); they subdued or expelled them, and named

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their conquest Toorkistan. It is to the Finnic tribes, first propelled across the Jaxartes by these conquerors, that the dynasty or the rulers named Afrasiab, so celebrated in Persian tales, are to be referred, when the names of Iran and Aniran first began to be distinctive of Persia and Bokhara, while the adjacent states, more anciently called Bactria, retained the name of the capital, Bactra, only in the writings of the west; for Finnic Toorkees had called it Zarias, probably Serai, and at one time it bore the name of Bykum. Afrasiab, whose race was fair-haired, proves that the stock was not so much Turkish as Finnic; and the same inference applies to Salser and to Rostum; consequently, that the ruling clan of Cabulistan was for a period of northern race.

Of the Torkee branch the Hiong-nu, according to Abel Remusat, is the most ancient recorded in history. It once inhabited Mongolia proper, and possessed a vast empire, which flourished about three centuries before the Christian era; and the dissolution of this state was the chief cause of that succession of barbarian invasions, which, like rolling waves, incessantly poured upon the west during several centuries, driving intermediate nations before them, or breaking through discomfited tribes, which, in order to escape, made the most destructive inroads themselves; often at war with each other, the empire passing to a different tribe, or with the Huns, and other more strictly Finns, who in turn held temporary dominion. The Thou Kioei, or Altaic Turks, according to Byzantine historians, formed, in 552, a vast empire, which soon reached from the Caspian to China, and broke up in 703. It was Dzabul, their Kan-Khan, who received the ambassador Zemarkh, sent by Justin II., in 569, when another embassy from the emperor of the west was already returning.

The Tchy-le or Thiele, a numerous nation, resided, in the sixth century, to the east of Lake Balkach, under the names of Kaoutche and Hoei-he, and from 788 that of Hoei-hou represent the same people. The Tchy-le, according to Klap-

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roth, mustered above 300,000 horsemen, and the Hoei were formidable in the eighth century, when they were already advanced in civilization. The Seldjucks, so named after the chief adventurer, who enlisted men of different tribes under his banner broke into southern Asia in the ninth century, during the reign of Malek; they overturned the empire of the Khalifs, formed the states of Iran, Kerman, and Roum or Iconium; and from the Seldjucks sprung the Osmanlis, the present sovereigns of Turkey. We might here add those tribes with Circassian chiefs, the Petchenages, probably identical with the Kanjars. The Komans and Uzu, united in the eleventh century, who were known to the Russians by the name of Palowze, and Chuni by the Hungarians. From the tenth to the twelfth centuries they were the terror of eastern Europe, till in the thirteenth they were exterminated by the Mongols.

All these nations, as well as the true Caucasians we are about to describe, moved into Europe from the distant east, by routes which, it would appear, were entirely the result of chance; yet, upon examination, it is found that the great majority of cases, in whatever geographical locality a primeval column sought its permanent abode in the west, there, also, one wave after another of kindred race subsequently found its home, notwithstanding ages intervened, and circumstances had thrown new obstacles in the way. Perhaps intermediate points had continued to be occupied by relatives of both, or records of the success of former colonists had reached back to their points of departure; or, finally, it was because there are in geography natural directions of progress from one region to another, however distant; and that local conditions impel all migrators, once moving on a given line, to follow it out to the ultimate destination. These observations apply entirely in the human movements, from east to west; mountain chains, deserts, the course of rivers, and even real obstacles, conspire to produce the same results, while the contrary direction is all but impracticable. Intellectual power

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alone, where arms have ever failed, brings it back to the east by the progress of religious truth, of science, and of the reasoning of common sense; thus amply repaying Asia for the innumerable rudiments of practical and imaginative life we have owed her for so many ages.

Having disposed of the Finnic Stem, and shown, in the mixture of the Hyperborean with the Caucasian stocks, the direct consequence of soon obliterating the external appearance of hybridism, and perhaps, with somewhat less procreative fertility, tending to elevate individuals and whole clans to giant forms, we should now proceed with the true Caucasian or bearded type, if it were not that, at the commencement of the division of the primæval stocks, we had noticed, on the south of the Caucasian, that there was similarly an intermediate stem formed of the woolly-haired or Negro type, in various states of commixture with the bearded, where the tokens of degradation, or of inferiority, passed away with even greater rapidity, but less durable results; and though the stature remained the same, the marked difference of color proved the descent from hybrids, who, like the true Negro type, possess the perceptive and imaginative faculties in greater proportion than the more enduring reflective powers; whence the incapacity to advance beyond a certain limit in reasoning, civilization and empire, seems to follow.

Taking, therefore this stem, with a view to have in the sequel only the pure Caucasians to examine, we place here

THE ETHIOPIAN OR MELANIC STEM,

such as it was marked out by the earliest writers of antiquity.

Under this denomination, it is desirable to arrange the races sprung from a real or an apparent interunion between the woolly-haired and the bearded types, distinguished by black, curly, undulating, or lank hair; a sufficient beard, with the features of a Caucasian form, partially and often supereminently

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displayed, having the same typical structure, and the color intensely black, only when local circumstances indicate those qualities to be so far accidental. It is distinct from the sub-typical Malay, and the intermediate ramifications derived from it, by well-marked characteristics, notwithstanding, excepting where there is reason to believe that the Malay stem is itself crossed with Indo-Caucasian tribes in the eastern provinces of India, and in a great part of the southern. Excepting that the ears, especially of the Malabars, and the upper Egyptians, stand somewhat higher, and that the legs are proportionably longer than is the case with either of the types, there are no very distinct characteristics immediately observable, though the mouth, lips and nose are full, the hands, fingers and toes broader and flatter, resembling the Negro form. The African Ethiop has the hair pendent in heavy close ringlets, and the black eyes are still larger, and more soft, than the Indian. Equal intermixture constitutes the usual Mulatto condition; but, in the east, a much greater infusion of Caucasian blood does not very evidently clear the skin. Some of the lank-haired nations of India, as such bearing signs of more than semi-white descent, are, nevertheless, among the swarthiest of the whole. It has even affected old Portuguese colonists, and the ancient Jewish inhabitants of India; neither, it must be confessed, having the least claim to purity of origin, but being a mixed progeny with low caste natives, themselves, as we have before stated, descendants of aboriginal Paharias, Bheels, Nagas, and with only a small admixture of nobler blood. Nevertheless, among these slave and outcast tribes, the chiefs have high aristocratic features, which are not unfrequent among their subjects. Whether the mucous membrane of the very dark tribes of Ethiopians, with lank hair, assumes the same appearance as that of Negroes, is not, so far as we have been able to learn, remarked; though, if this condition of melanism should not exist in them, it would produce a very valid argument in favor of the assertion that the woolly-haired race is of

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a distinct origin. There cannot be, however, a doubt that in the Mulatto state, or half-bred Caucasians, that peculiar structure of the skin must be in part remaining, since, in the character of the hair, we find it in proportion of the bearded parentage; the frizzled and mop-like character passes into spiral curls, then undulates, and, at last, is wholly straight, while, in descending the scale, the mop becomes crisp, and returns to that low state of humanity, which, in the warm regions of the east, was branded with the reproach of being accursed. From this imputation, indeed, the more physically elevated real Ethiopians were not exempted. In the Sacred Scriptures, with perhaps some exceptions, Chna and Egypt were so branded to the promulgation of the Christian dispensation. The hatred incurred by the race of Cham or Ham was, indeed, repeated in the north, by the same pure Caucasian stock, towards the Hyperborean, if we may take the earliest Finnic Tschutski to have been the first miners, and, perhaps, the Tubal Cain of the Pentateuch; for obloquy pursued both, although for ages they were mixed races, and long the depositories of the dawnings of civilization, though not the first to organize human progress.

Races of mixed Caucasians, afterwards known as Joktanites, Indo-Arabs, and Semitics, descended the west bank of the Indus, and, from the remotest period, secured the whole Suleimanic range, and at this time already fixed upon the culminating point of Takt-y-Suleiman, or, rather, Arawati, the mountain of the dove, or the ship, for their first remove of the Arkite reminiscence from its original centre.* They left the purer Papuas scattered westward, or drove them onward till one of its tribes constituted the Negro races, with a taint of the

* The Arawati and Aryawart mountains are, perhaps, higher up in Asia, and the real locality of the diluvian record. But the Parveti Montes of Ptolemy, so named from the Sanscrit Parvat, a dove, is Suleiman Koh, 12,831 feet high, still noted for the abundance of different species of doves.

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white stock forming the most western branches, such as the ancient Numidian, and present Caffres and Gallas.

In consequence of the deep-rooted hatred of the Caucasian races towards the typical Negro, we find those frequent allusions to purity of blood in the Arabian clans of the desert. It is the whole question whereon the poem of Antar hinges; for color alone is not the cause, since Bedoween tribes are, in many instances, exceedingly dark, from the Euphrates to the west coast of Morocco; and the Tarikh Tebry endeavors to account for it in the legend, which relates how the ancient Arabians were fair and blue-eyed, but so wicked that they would not hearken to the prophet Salah. Miraculous omens had no effect, until, at last, they were converted, in one day, from white to red, and, in the next, to black. This tale may be the reminiscence of Scythian inroads and conquest, such as were effected by the giants of the Pentateuch, who, inferior in number, were gradually absorbed by the predominant race; and, though masters (for the master race, in Oriental relations, is, in general, the only object of record), became dark in their descent, and were mostly driven across the Red Sea. The northern infusion was repeated more than once; and, besides Egyptian history, we have the Geta and Arabians confounded by classical writers, as we shall notice in the sequel.

The Cushites* of antiquity, confounded in many cases with the Joktanites, correspond, with scarce an exception, to the Ethiopians, as we here notice them: the regions of *Cusha Dwipa* within, and *Cusha Dwipa* without, of Hindoo geography, exactly represent Asiatic and African Ethiopia; and the names of *Itiopiawan* and *Itiopia*, by which the Abyssinians still desig-

* Chus, Cush, Cuth, according to Jacob Bryant and Holwell, is derived from *cushet*, a bow, still the chief weapon of all the wild mountain races of India, the instrument they used to achieve the death of opposing demigods, and, till lately, arming them as the guards of rajahs and princes, who took them into their service. Goosch, in India, still denotes a robber.

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nate themselves and their country, notwithstanding all disclaimers to the contrary, denote, like the Arabian term *Habesh*, for the same state, a mixed people, with perfect correctness, for they were the first semi-Caucasian invaders of Arabia, Cushites, Semitic races from the Suleimanic range of the western border of the Indus. Fair tribes, from more northern high lands of Asia, mixed with Indian Nishadas, or with the local Nimreks of the soil, were already a very compounded race in Elam, before they were driven across the Straits of Babelmandeb. They had, even then, the elements of science and civilization imparted to them, by the giant invaders of western Asia, or by Gomerians, high on the Indus; for, to this day, traditions, customs, and opinions, prevalent in Abyssinia, bear evidence to the fact. Later colonists passed, no doubt, the same straits, for a considerable influx from the west of Asia is evident in the languages still spoken along the east coast, even as far as the cape; and the higher development of the Galla and Caffre tribes can be traced to a partial Semitic intermixture. The basis of civilization must have been communicated from indigenous progress, already developed in the peninsula of India, or by the more recent knowledge carried along with the conquests of pure Caucasians, in the regions of the Ganges, or in Elam (Persia), by other conquerors, but both appearing to derive their acquirements from some common source in the upper valley of the Oxus.

The original formation of the Ethiopian stem appears to have been in the burning alluvial deposits formed by the Indus, and along the southern foot of the Himalayas, on the Helmund, the Kabul, in Cashmeer, and the Punjaub, where Caucasian tribes, seeking warmer regions, encountered the black races, and, by conquest and slavery, commenced amalgamation, which every new wave of invaders conduced to increase. Further immigration to the plains of India naturally followed, through the secondary ranges of the mountain chains, or they crossed over from the high land of Thibet. That the move-

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ment was, in a great part, from north-west to south-east, is proved by the presence of Gangarides in the valley of the Bramaputra, where, in other respects, the foreign element in the first population was eastern Caucasian or Malay. Who the bearded tribes were that originally spread over China, was sufficiently shown in the notice of the Mongolic and Finnic nations not to be again repeated, although we have, on the south of Asia, nations similarly constituted, but further debased by certain Papua intermixtures, and all feel the different influence of a southern, and, often, a marine climate.

The infusion of northern elements is strikingly proved by the predominating presence of Sanscrit in all the dialects of India, although variously debased by forms of speech of indigenous origin, Parbatyia, Naja, Dravira, Bheel, Nishada, and Yadhu, &c., upon which it was ingrafted. As the invaders came through the gorges of the mountains in successive swarms, and not always from the same point, they subjugated not only the black aborigines, but also the mixed tribes of their former conquerors, leaving only that portion in freedom which could retreat to inaccessible mountain districts, to recede from the civilization they might have had before their political ruin, and either pure or already under the rule of masters not of the kindred stock. The older invaders seem to have been denominated Chasas, equivalent to the western term Asi, or Asen, highlanders, which is also the meaning of Guras. They came, more particularly, from the southern side of Hindu Koh and Paropamisus, in their last debased condition, constituting the Indo-Arab races, but here almost universally become true Ethiopians and Cushites, by union with nations still more melanic, and who formed the great majority of the population. Other mountain conquerors first came to the south by descending the passes of Thibet, leading to the high basin of Cashmeer, where the name of the capital being Nagara before it became Caspatyrus, supposes the population to have been Naga, and of the same stock with that of the lower Indus, where the name was likewise

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given to a city, a Heliopolis, as Strabo asserts, where the snake worship was then, as it still is, in existence in Cutch.* This very degrading worship was not inconsistent with the idolatrous sacrifice to the giant divinity Muhishan, whose statues have a serpent wound about the loins, and whose legend is of so ancient and peculiar a character, that he may be regarded as a solar god among the aboriginal tribes, he alone riding his war buffalo in battle against Durga, and, therefore, the supreme type of indigenous power before the horse was known in the peninsula of India.† That this divinity was, by Hindu, Arab, or Cushite invention, converted to Kali, is evident by the similarity of Moloch, in Syria, with both; and, by the retreat of Mahades, another form of the same, to the mountains of Kylas, when in danger from the assaults of Ravan, is shown that his worship was not then admitted in southern India.

Notwithstanding the repeated contradictions and dualisms of all the Indian mythological compositions, there are to be found shadowy pictures of historical events in the great Sanscrit poems still extant; for although even the oldest were written many ages after the transactions to which they refer, probably by men who had no circumstantial traditions, and were more imbued with the marvellous and imaginative to form mythological themes, according to poetical formulæ, than

* Cutch and Gujrat may both be connected with the Cuthite race, and fit localities for migrators by sea; for from Diu, in Cutch, Gama despatched the open boat that conveyed the intelligence of his arrival in India. It went round the cape, and arrived safe at Lisbon. Nearchus went from Kurrachee.

† We have before mentioned the figure of a Rajah riding his war-ox, and the almost Ethiopian Caffres of Africa mounted on them, to a recent period. It is probable that Hannibal derived from his Ethiop Numidian companions the celebrated stratagem, when, by means of oxen with combustibles burning on their horns, he puzzled the Romans, and extricated himself from a difficult position. It may be remarked, that the Black Muhishan is opposed to Durga a divinity of the invading mountaineers.

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to draw up historical documents; still there are casual glimpses of facts, fixing certain geographical data, and a general current of events, which reveals many truths, though the dates, the persons, and circumstances, may be nearly all fabulous. Among the Sanscrit poems, beside the Puranas, there are the Mahabarata and the Ramayana, particularly available to form approximate notions on the earliest history of India, and the composition of nations it still contains. Though the substance of the first is said to be fifteen, and of the second thirteen centuries older than the Christian era, it will be safer to consider both as referring to events at least as ancient, while the poetical views of the compositions, exclusive of episodes, such as the deluge, &c., are evidently centuries later, and in all cases refer to dates subsequent to the first invasions of the Caucasian Man, though not to the total subjection of the Indian peninsula to his conquests. We take the Ramayana to be the later, in point of composition, in the form it now appears, as shadowing forth the remotest known conditions which affected the two typical stocks in southern Asia. The subject matter is so grand and exciting, that Valmiki's 24,000 slokas, or distiches, are not the only though the most complete elaboration of the theme now extant; for there is another ascribed to Vyazudavu, and three or four more, of which that by Bodhyana is said to be replete with splendid passages. All relate to the actions of Rama, the hero divinity belonging to the first known dynasty of the kings of Oude, at a time when it does not appear that the other sovereignties of the peninsula were, as yet, in possession of the conquering bearded races. The Nishada, Vidantha, Naga states, the kingdom of Kapila, at Hurdwar, on the Ganges, &c., were in the hands of indigenous tribes, and Lanka Dwipa was the abode of demons.* Some,

* We have not had access to Ward's History of the Hindoos, and, therefore, cannot judge of the view which that learned scholar takes of the primæval period. It is, however, a subject of regret, that : ot more Sanscrit documents have been published, and that what is before he pub-

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like the Rana of the Jaitwar tribe, claiming to be descended from the monkey hero Hanuman, and pretending to have a prolongation of the spine in proof of the fact, shows at least that certain families, of whatever origin they may be derived, still wish to pass for descendants of aboriginal tribes. In the north-west of India, and east of Persia, Shombho, Nishombho, Muhi-shan, Tarika, Durga, and Ravan of Ceylon, are indigenous giants of tradition, in all probability personifications of states, and of repeated wars by Papua tribes against invaders from the high mountains. The persevering nature of the contest may be gathered from the circumstance, that although all were for many ages ruled by chiefs of mixed origin, their final subjugation was not accomplished till the Mahommedan conquest.

In the usual dualism of mythology and history, we find Rama, the son of Budha, and grandson of Meru, child of the sun, abiding in his holy mountain, west of Kaubul, probably Indo-Koosh.* Bali-Rama, the hero son of Desaratha, or of a tribe so denominated, being accompanied by Jumont (bears), Hanuman, monkeys and other wild beasts constituting his army, came down the Cabul river, across the Indus and Punjaub, established or found already formed the kingdom of Ayodhya, now Oude. He with his brother Krishna vanquish Jara Sandha, king of Bahar. In these wars, the wild beasts, with the bear, evidently represent tribes from the high cold regions, while Hanuman, with his monkey army, are the aboriginal race of the Vindhaya chain and lower districts, probably

lic must be sought in many volumes, scattered through the literature of Europe.

* Mythologically, the holy mountain may be Dhawalagiri, the highest mountain in the world, and in sight of the northern border of Oude, in which case the Gogra, or more likely the gorge of the Gunduk, in long. 88, may have been the route followed from Thibet by Rama. The pass is still frequented; but one was more certainly from the north-west, and then, with a tribe from Balk, the march was necessarily by the passes of Kohibaba. Yet the Hindo-Mongoli dialect shows that at least a conquering people came down Himalaya, by the pass of the Goomty.

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Bheels; for Bhil, the god or native prince of this people, slew Krishna with an arrow; and in another mythus likewise killed Heri, one of the Pandoo brethren. Defeated or expelled his conquest, Bali-Rama is related to have been an exile from Oude, wandering with his wife Sita, who, being carried off by the giant Ravan, king of Lanka, originated the war with the Rakhshasas, cannibal giants, in Ceylon. After great opposition, the insular defence is surmounted by the bridge which Hanuman makes of mountains to unite the island to the continent; and although Rama himself is at one time captured by the Cauravas, the hero divinity and Sita are both released, Ravan slain, and the powers he ruled destroyed. There is in this mythus a religious war indicated, as well as a war of races; the victory is evidently indecisive, since the conqueror returns to northern India, and afterwards reigns in Oude. In this great and brilliant poem is the first notice of the people of Balkh, in Transoxiana, under the name of Bahlikas. They are represented as a kind of fairy philosophers, residing in the holy mountain, or sacred centre of religion; still bearing a certain resemblance to the revered and wise Scythians of the Greek poets.

In the second period we have no longer wars of entirely distinct human stems, or at most with only the partial adhesions of the Naga races to the invaders; they became wars of invasion upon predecessors, or intestine conflicts among tribes equally mixed. The Mahabarata mythologizes the worldly interests of these nations into religious struggles between the Pandoos and Kurus or Cauravas, the children of the moon and the sun; which may be interpreted by the Celtic, or followers of a lunar arkite doctrine, opposed to the semitic or solar worship, which belonged more probably to the people of the south. The Pandoo brethren appear to be Gomerian Celtæ, sons of Pandu and of Coonti, a princess of Mathura, sister of Heri and Baldiva, the Indian Hercules. Coonti had, by several gods, Yudistra, Bhima, Arjoon, Nycula, and Sydiva, all clearly his-

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torical heroes or tribes, enveloped in mythological and allegorical forms; but the mythological circumstances being a parallel of the Egyptian, Greek, and Roman, they are necessarily older than the ages of Bali-Rama, or of the Pandoo brethren.* They are all importations from Balkh, modified in each region by local ingredients. The historical Pandoos are first placed geographically beneath Cashmere, in the hill country north of Lahore, or, as others relate, the Pandian Raij was on the borders of the Jumna, with a tribe named Bahikas among them; after their migration and wars in the south, they are established in the Gomerian Celtic state, the present Carnatic, with Madura for its capital. It is in this vicinity that frequent cromlechs, locally denominated Pandoo Coolies, are to be found; and they exist likewise near Bombay, where the caverns of Salsette, like those of Elora (Yeroola), confirm that the Pandya tribes, like Rama, originally came from beyond the Indus, and carried on a religious war of conquest against nations who had a solar worship. That they penetrated to Ceylon, may be surmised from several striking coincidences in the oldest legends of the island, when compared with the ancient western tales ascribed by Welsh poets to the Druids. The significant prefix, *Tre* or *Ter*, joined to towns and places, is even now as frequent on the main land, and in the islands, as it is in the Celtic provinces of Britain or France.† If Krishna, the blackener, a designa-

* It may be observed that the Pandoos are children of the watery element. Coonti is a native of the locality where the Indian deluge took place; Heri and Baldiva are solar personages, and the land of their birth is still marked by numerous cromlechs.

† Compare the Ceylonese legends in Upham, with the Celtic tale of Iseult and Tristrem, where the dog with three different colored spots, red, blue, and green, represents the candidate for orders in bardic druidism; and the five colors of the Hibernian are similarly typified by dogs in the mystical language of the initiated. We name here a few localities, bearing the prefix *ter, tre, tir;* Travancore State, Terepuney, Teruwalla, Trivandrum, on the west coast; Trichindoor, Tirun, Tiripauramun, Teroomungalum, Teruchooly, Terumboor, Tripatoor, Teruvunpette, Trinchinopoly, Tiruvalur, Tranquebar, Trinchingode, Tircoiloor, Triomalle, Tirovady,

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tion of the sun, likewise connected with the Pandoo mythus, have a historical basis, approximating, though probably still earlier than 1350 years before our era, it marks the period of the Helio-Arkite superaddition to the most ancient northern Caucasian system of a trinal supreme godhead, the Indian Trimurthi,* one not unknown to the Celtæ of western Europe, but where it succeeded the Helio-Arkite doctrines, or combined with them, as was also the case in India, where Vishnou is the Arkite savior, and belongs to a mythus more appropriately ascribed to Gomerian Pandoos than to any other race east of the Indus. To them also may belong the Gomerian practice of wives becoming common to a whole family of males, such as still obtains in the mountain parts of the peninsula, in the Suleimanic range, west of the Indus, in Hindu Koh. It was, in a more refined form, a dogma of the Hebrews, was not unknown to the Britons, and put in practice by the Pandoos.

In this view, the Pandoo invasion of the lower peninsula appears certainly to be more remote than four centuries B. C., and precedes even the ten assigned to it by the great authority of Professor Wilson; for, in that case, the Gomerian Celtæ of the west would have reached their destination long before the arrival of their kindred in the south; a region so much nearer to the common point of departure. Were either of the above admitted, it would subvert the natural connection evidently existing between the east and west, and leave the source of a variety of ideas, opinions, and usages, common to them, totally inexplicable. They extend even to Abyssinia, where the death-wail, and many other usages, are similar to the Irish, and both are unquestionably derived from the far east. If the westward migration of these Hindoo Ethiop tribes were traced to its origin, we might refer one of them as a likely consequence of

Tripasson, Trivelore, to Trivalore, on the north of Madras, all in the Carnatic, and Trincomallee, Tricoville, Tirrach, &c., in Ceylon.

* The same as Triemathur, on the north, Pendoran of the British, and even Taregatanga of the Peruvians.

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the severe civil war wherein a part of the Pandoos were worsted. Colonel Todd, in his Rajahstan, points out the plains of Caggar and Surawati, where the decisive conflicts took place, when the fifty-six Yadhu tribes were at length broken, and departed with Ardjoon and Bhima to unknown regions. We find, in other mythical tales, the Asuras or Ashurs* eminently religious and virtuous, according to the doctrines of the Vedas, and therefore invincible, even by their gods, till the jealousy of Vishnou suggests the expedient of preaching, in the form of Budha, tenets still more humane; which, being adopted by the Asuras, causes them to fall from the true religion; thence become liable to defeat, and accordingly they are vanquished; that is, the Brahman interest caused a religious war against the Budha doctrines, admitted to be more humane than the Vedanta; a fact well known to be historical, though here clothed in a mythic garb. Although the Asuras cannot be mistaken for Assyrians, they may, nevertheless, have been original Hasaures, Asii or Arii, the Indo-Germans of history; for these have figured in northern India for many ages, sometimes being taken for Indo-Scythians, at others for Hyatili; and it was probably this last swarm of invaders which destroyed the city of Valhabi in Gujrat, about the year 524 of our era. The ravages of conquest, ended in this latter case, were of temporary influence. The Rajpoots and Čatties (Cuthæi), who were themselves only predecessors of the Indo-Scythæ in the north-west of India, recovered their power on the east side of the Indus, and still show the blood of High Asia in their stature and color, even to the extent of gray eyes and light-colored hair, observable in some families; though, in general, they have high Arab or rather Hebrew features. Per-

* Here the Asi are admitted to be wise and virtuous. They came from the same region as the Bahlika priesthood; were terrible in war, typified by their monster heads, and were, perhaps, the Arai or Mahratta colonists. The Asuras were sons of Diti, wife of Kasyapa; which again gives a mountain origin to these Titans.

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haps the Sixth Avatar, where it is related that Vishnou, in the form of Parasha Rama, destroyed the Chetrie, Xeterie, or warrior caste, may signify that the Arkite Pandoo States were able to defeat the Rajpoots in their endeavors to penetrate into southern India.

Soon after the period of Alexander's invasion, further dislocations took place; a portion of the Cuthai (Cathai), however, remained, but the Malli, it seems, were already driven to the southern Ghauts, probably by Arachosian or Affghan conquerors, who, for many ages, held sway from the sources of the Cophis or Cabul river, across the Indus, to the Hyphasis or Sutlej, and caused the Indian empire to be regarded as extending westward to the confines of Persia. Most of the tribes, whose names occur in the histories of Alexander, and that can now be deciphered in Indian geography, are no longer in the plains, but form clans in the mountains.

The variously mixed races from the north-west and north-east, with the aboriginal Papua tribes, can be traced by the deepening color of their skins towards the south, and by the greater remains of true Papua features, taking into account anomalies of circumstances. It is so, likewise, with the influx of Sanscrit; becoming less prominent in the south, where Pali prevails, and it is also marked by the Brahmanic system of religion, the Vedanta creed becoming more and more modified by other idolatries, and by the Budha doctrines taking refuge in Ceylon, where it appears to have incorporated a whole native demonolatry. This last religious institution was, with its Naga worship, no doubt, established during the period when the peninsula of India was still in the power of the Papua tribes, and was sufficiently exciting to have been carried westward, not only by migrating Negroes, but also by the Ethiopic Stem, by Mongols, and even Gomerians, in their progress to Europe. India being at that early period a scene of conflict, the invaders found sovereignties either already established, or formed them by degrees, as their irruptions became permanent. In the

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north-east, the Euro-Caucasians established on the left of the Ganges the state of Tirhut; Canya Cubja occupied the upper parts of the river. Sereswati, the present Punjaub and Utkala contained the greater part of Bengal. On the south and west there arose Gujara, Rushtra, or Gujrat, Patala on the Lower Indus, with other kingdoms already named. Khandeish, further to the south, Mura, or kingdom of Mahrustra, now Mahratta State, subdued, perhaps, by Arii or Arai, in the centre, with the Dekhan and Kanara, on the extreme point of the peninsula. But sanguinary and protracted wars alone permitted the white races to become dominant and to effect a gradual intermixture.

Wars, producing total subjugation, by one race over another, bear the character of extermination; they necessitate the weaker party to seek safety in flight and migration: nor is the result very different where the races are already partially intermixed, for then a ruling caste, descended from the last victors, is driven to the same course, or to total loss of all supremacy, unless the chances of the conflict are sufficiently chequered to cause the earlier and later invaders to coalesce by compromise. Now, if the Pandoo heroes, with Ardjoon and Bhima at their head, departed after the defeat of the Yadhu tribes, there is little doubt that the direction of their retreat was westward, and constituted one of those migrations of the Asiatic Ethiop race, which was afterwards conspicuous in southern Persia, as a portion of the so-called Indo-Arabs, who were ultimately driven from Yemen, and passed to Abyssinia, or formed the Cushite people of African Ethiopia.* Tribes of this class were most assuredly the

* If Nimrod, as is asserted, was a Cuthite king, ruling from the first in Assyria, the Babel which preceded Babylon was a city of Ethiopians, with Caucasian or Finnic rulers, probably the Gaurs, who seem to be identical with the Gordei, who may still be represented by the Coords of the present day. Nineveh, &c., were capitals of northern districts, but the resident population, between the Tigris and Euphrates, was Ethiopian; since Mesopotamia, now Djezirat, was encompassed by the river. This circumstance, and the swarthy Colchians of Herodotus, gives the northern

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element which formed the Aurite population of Upper Egypt, for they still retain peculiarities of structure observed in the present Malabars.* Others, less swarthy, were colonists of Lower Egypt, constituting the Misr population, of whose progress we have already adduced proofs, by the plants and animals which they could not have possessed, but by departing originally from High Asia, and, subsequently, from the vicinity of the upper Indus; and the further progress they made is likewise to be traced by the symbolical lions in their sculptures being invariably maneless; a character which marks the variety of that formidable animal existing only in the southern portions of ancient Sindh, Persia and Arabia; while the typical species, if the symbol had been adopted from the African, would most assuredly have been figured with a huge mane.

Some hordes had preceded them across the Nile, to form a portion of the Mauritanian and Nubian populations, which, we have already shown, were in part driven by the Arabs, at a later period, across the Sahara, to commix with the Negroes on the Gambia, and are now Poulas, Jaloffs, and Mandingos. Others departing by sea, probably from Ceylon, reached as far as Madagascar, where they found already the Ompizee cannibals, while they formed themselves the tribes of black Malgash Voalzis, Ondeva of the present time. These were followed by Semitic clans of Indo-Arabs, whose kindred we have seen in the Australian Islands, and who, on the shores of eastern Africa, commenced, under the names of Joasmees and Jacalvas, the same profession of pirates. These, in common with the Habesh, influenced the whole of the south with opinions

limit of the Ethiopian extension, that is, as far as the boundaries of the date tree and the habitation of the ostrich.

* Among others the large eyes and long legs, which may be the origin of the legend of the Macroceli, Tala-gangha, a tribe of ancient India; but we think the present Catties of Kutch are descended from conquering Cathai of High Asia, giving the name, and forming the master tribe of the original Papua Aurites along the coast.

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and parts of speech; and they modified the characteristic distinctions of the Negro people within contact, as is evident in the Caffre and Galla nations.

There remain now only a few more remarks to make on the Ethiopic tribes in primæval Arachosia, Aria, and Syria, similarly originating in commixture between Arab or Melanic Caucasians and Papua races. They are traceable by the denominations of Nimreks, Dombuks, and Kakasiah — the black brethren of ancient legends: and the antiquity of occupation in Western Asia is attested by the same documents; for these races are stated in Arabian lore to be pre-Adamite, and the localities they held at one time are perhaps marked by the residence of the black giant, Sukrage, one of the seventy-two Sultauns who reigned in Kaf before Argenk, another giant of tradition. Kaf,* an Arabian name for the great central table land of Asia, is here referred to a particular locality, perhaps the chain of Demavend, or one of the several peaks bearing the name of Alburs, or, rather, Kohi-Baba, where Argenk's palace is described to have been adorned with statues of monsters, endowed with reason, "such as existed in former creations." There were pictures upon the walls relating to those

* Neither Kondemir nor Mirkhond are the inventors of these traditions; for Kaf was, in Arabian lore, a mountain, "enclosed like a ring surrounding a finger," and "the sun rose and set from Kaf to Kaf." It denotes the high land of Asia. The *Sakrat* hinge of the world is Himalaya, and was the region wherein the deeve bird Simurg or Simorganka tells Temurah he had served forty Sultauns, his predecessors, and had seen the creation renewed seven times. Kaf, when particularized in the Shah Nameh, is evidently Kohibaba, which, with its two passes, was best known among the elevated peaks on the western front of the great plateau; and there it appears Zohauk is likewise fabled to have had his fastness, though another of the name is placed in the middle of Lake Zurrah.

The number of seventy-two Sultauns, compared with the forty Solimans, indicate the priority of residence in easternmost Persia to have been on the side of the sable races. According to Arabian notions of geography, Kohi-Kaf is situated between the habitations of Iran and Ginnistan.

"Taric Tebri." See also "d'Herbelot, in voce Soliman ben Daoud."

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times, poetical embellishments in the legend, which, since the late discoveries in the ruins of Nineveh, show that the narrations are drawn from buildings adorned with Andro-Sphinxes Sirens, and Taurine monsters, similar to those of Persepolis The locality may even be much more towards the north and east, since a sculptured sphinx has been discovered about the Altaic gold mines, and similar objects are frequent in the ruins of ancient cities about the river Amour, in Chinese Tartary. The name of Temendoun, a giant with one hundred arms, defeated by Kayomurs, first king of Persia, but who escaped and fled to Oman, in Arabia; one more, named Anthalous (Antæus), with a thousand arms, who was captured and sentenced to death by Soliman Ben Hakki, who could never accomplish his decree, indicate that they are reminiscences of ancient legends, notwithstanding the evident plagiarisms from Greek fables and Hindoo relations, and that the color, the direction of the flight, and the indestructible character of these enemies, whose many arms imply the strength of their forces, and the region and antiquity of their occurrence. They are, moreover, countenanced by others, such as the antediluvian sovereigns Mahabad, "Father of mankind;" Biurasp, "King before the flood;" and Gilshah, "The first man;" all mythical records of the first Caucasian invasions from the high lands, and the wars they waged upon the black populations in possession of the land. If the relation of Herodotus can be admitted, they were in his time not quite extinct in Colchis. The evidence of their blood remains marked in the present Bedoueen Arabs; it was unquestionable in the race of Ham in Chaldea and Syria; in the Ethiopia of southern Persia, Persis, Chusistan, and Susiana; in Arabia Deserta, from the southern coasts of the Indus to the Straits of Bab-el-Mandeb, and in Upper Egypt to Nubia and Cordofan.

The Shah Nameh furnishes traces of their wars with the Iranians, and Asiatic Ethiopians are historically noticed in the time of Xerxes. The whole region from Hindostan to Lybia,

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was anciently, and even is now by Orientals, frequently denominated India. Like their ancestors, the population still forms a mixed race, having in general ruling families of a white origin; sometimes named Getæ (Goths), Germanii of Kermanshah. Strabo (lib. vii.) makes Pyrebestas (Abu Rebbia) rule the Getæ. Ammianus calls Arabia the desert of the Getæ; and the Beni-Ghour (children of the swamp) are still regarded as a fair race, descended from that stock.

It is in this territory, and adjoining Egypt, that in the earliest antiquity a very considerable civilization is detected, because the confluence of nations moving westward obliged concentration at the isthmus, in order to reach the lower Nile, and in this manner they became conversant with each other's discoveries in the arts of life, and saw the dawn of commerce opening by the mariners of Sidon.

Whether the Imilikon, or Amalekites, were of the same mixed stem, does not clearly appear; but that the Phœnicians, Punes, Fynes, so far as the master tribes are concerned, were Finns, is exceedingly probable, since a red-haired race necessarily must have come from the northern parts of Asia; and if the language they spoke was in the historical era almost a pure Hebrew, the cause is easily discovered, since a white community, of no great strength, had gradually increased to a series of cities, whereof the vast superiority of inhabitants were Semitics and southern strangers, who, from the period of the first conquest of Phœnicia, acquired political power; whereas, until then, they had perhaps only possessed a certain preëminence in the refinements of civilization. The Phœnician power was long settled before the arrival of the Hebrews in Palestine, and it was not regarded by them in the same light as the upland tribes of Canaan, since political and commercial alliance, and permanent peace, existed between the two states; conditions which could not have been maintained if the Punic race had not been of a very distinct origin from the Canaanite.

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EGYPT.

If the isthmus of the Red Sea was already closed on the Mediterranean side, when the first human population came to the western shores of Asia, it may be assumed that the delta of the Nile was not yet so consolidated as to offer any firm footing beyond the sands on the beach; while the marshy fens within them were, as yet, only beginning to form the present lower province. Gradually the valley was occupied, from the head of the first bifurcation of the river, up to the cataracts, by a population of very distinct origin, cemented together by causes not now accessible to investigation; for here three nations, at least, adopted the same system of civilization, and amalgamated together from different sources of migration, elaborating a state religion, and peculiar social institutions, whatever difference there might be else in tribal speech and local doctrines. The oldest of these nations had been pushed up the river by succeeding immigrations, and was of true Ethiopic character, Indo-Arab, deb or black, and since known by the names of Aurites, or Abarites. It was apparently composed of tribes expelled the coast of Malabar, and distinguished by the more elevated position of the ears, by large dark eyes, strong curly hair, long legs, thick lips, and very swarthy color: the second, a brown race, with lank hair, were the Misr, or Mestrai (Misraim of antiquity), said to have been led by Masr; but all these names indicate a mixed race, which both were; and the third, governed by a fairer high-featured tribe of real Caucasians, were most likely the last comers, and in part a privileged body of conquerors; they were, collectively, the Gouptas, Koptos, said to have followed the mythological Menes,* who first nestled in the marshes of the delta, and

* Menes, the same as Manu, who binds the ark to the peak of Himavahn; and Meru, whose holy mountain was west of Cabul, near Bamean, and ancestor of Rama; but it may be a name for Joktan.

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most likely came by sea from Asia Minor. They obtained and kept the ruling power, the Pharaonic crown and priesthood, for ages, in their hands, although they were neither the authors of the civilization, nor of the religious doctrines of the land. The enormous army, with excessive privileges, maintained by the state, and forces often called in from abroad warrant this opinion. The conjecture is strengthened by the prohibition the government gave to all marine enterprise on the Red Sea, and the early and long continuance of supremacy it exercised over Syria; and, finally, by the reminiscence of hostilities in High Asia, which prompted the greatest of the Egyptian kings to make repeated inroads as far as Bactria, though ever with ephemeral results. At length the sceptre passed from them to the Cushites, who, in time, were again subdued by new hordes of High Asia; while the Cushite nation secured the coast of Abyssinia, Nubia, and Egypt, up to the Port of Aphrodite; this was the Ethiopia of Africa, Thosh, or Etaush, and Kush, still called Kish in the country. Both the Cushite and Aurite people had Caucasian or white chiefs, since, even at this day, Dongola women are prized, because they are comparatively fair. Leaders, like the expelled Pandoos, led them, by coasting, till they crossed over from the Arabian side to the Egyptian. Coming from the Indus, the Aurites ascended still higher, to the head of the Red Sea, as we are expressly told by Syncellus. They passed by the Wadi Sendeli, still named Derb-Tuarikh, and thence spread from Memphis to Thebes; for, had they been mere wanderers through deserts, their gods, in after ages, would not have been invariably placed in boats, nor would there have been, annually, a festival, when these idols were sent from below to visit others up the river, in splendid barges.* The origin of such a ceremony could only

* Diluvian records abound with all the Caucasian and cognate races. There are, probably, more than one hundred fabulous legends, religious and mythical, where the patriarch and his family are designated under different names, circumstances, and localities. Even in Palestine, there

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be derived from a commemoration of their first landing, or their original departure from the east, confounded with a diluvian tradition; notwithstanding, that record is so deep rooted, that, even to this day, in Arabia, the Arabs do not call out an army, where many tribes are collected, without bearing at the head of it a reminiscence of the ark, in the shape of a wooden frame, placed on the back of a strong camel, and adorned with ostrich feathers, which they call Merkeb (the ship).

The styles of sculpture, architecture, and excavation, notwithstanding the remote period of their origin, have more affinity to the Bactrian Hindoo than to any other colossal, ponderous detail; such as a compound of what remains of Nineveh and the earliest cavern temples would produce, showing traces of the natural development of art, when working upon the same kind of materials with similar means. The statues retain the normal pillar form in all; but the parts of architectural combination advanced beyond mere excavation, as it still was in the most ancient cavern temples of India; not so complete and less appropriate than the Egyptian, indicating an older date, though it was wielded in both regions by sacerdotal supremacies over great populations. The system of worship in Egypt was likewise allied to the Indian, though both, no doubt, had their revolutions, innovations, and successive incorporations of foreign elements. British sepoys, forming part of the expedition that was to coöperate with General Sir Ralph Abercrombie in the re-conquest of Egypt, no sooner entered the ancient temples in the valley of the Nile, than they asserted their own divinities were discovered on the walls, and worshipped them accordingly. They even pointed

were four or five, all greatly distorted from the true narrative in the Pentateuch. One or other of these Indian migrators revived the Neel of India in the Nile of Africa; for, unless the notion had begun in Egypt, all antiquity, to the time of Alexander, would not have been led to believe that the African stream had its source in India.

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out the Cresvaminam, or Brahmin distinguishing cord, as likewise a decoration of the painted divinities.

Few traces of Aramean or Japetian languages are perceptible in the constituents of the ancient Egyptian and modern Copthic. The Hebrew and Arabic are comparatively of recent introduction. Originally the Egyptian form was monosyllabic, essentially different from both, though the Canaanite nations of the same stock spoke a dialect of Chaldee, which in itself appears to be an evanescent tongue, and might have been preceded in Syria by a different form, as it was subsequently succeeded by others, since geographical localities of ancient Palestine were constantly indicated by two very different denominations. The Egyptian, no doubt, consisted of a sacred dialect; one which was used in all written documents, sacred and legal, while very diverging forms of speech belonged to different parts of the kingdom. There was, particularly, one in the Delta, another in Upper Egypt, and most likely the Cuthic above the cataracts. Uch and Pharaoth, the most ancient words for king, may nevertheless be both epithets, the first denoting high, eminent;* and the second, a mutation of Phre or Phra, recurs in the Pelhevic proper names of ancient Persia, where it designates command or leadership; while in Egypt the same word seems to have been appropriated to the sun, to exaltation and beauty, in which sense it is equivalent to the Theotisk *Frai*, Norsk *Fager*, handsome. Goshen or Goshan, in Egypt, and Gauzan in Mesopotamia, do not denote a temple of the sun, but literally the cow-land, the cattle-country.

The Delta was most probably designated in Egyptian by the name of Rab, since in Hebrew it was called Rahab. For ages it gave shelter to pirates and roving clans, which, when they had remained fixed during a certain period, had no means of

* Uch. See Manetho. It may be remarked, that there was a tribe of Uchii east of Persis proper, and that it was, according to Volateranus, from among this people the gypsey tribes first came forth. Uchii were, therefore, Highlanders.

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resuming their marine course of life, because wood for rafts and vessels was always scarce or wanting, the tall reeds and rushes suffering none except the palm-tree to flourish. This was the cause, it may be believed, why the Kapthorim, after leaving Kapthor or Cappadocia, wandering onwards by Rhodes, Crete, and Cyprus, till they rested for a period in the Tanitic arm of the Nile, were obliged to migrate by land to Palestine. There were also the Sinim and Phœnicians in the western arm, and Greek adventurers on the bank near Damietta; others, most likely, were absorbed in the Egyptian people, or passed onward to the west. Several of these tribes are, by classical authorities, placed in connection with the Hyperboreans, or rather the Finnic races, a branch of which may have been the Hyksos (or Shepherds), with the more probability, as the earliest Armenian language is known to have contained a great proportion of words belonging to that stem of nations, and the Armenian people were styled Haikos or Haik wearers, which is the same as Hyksos. They are even made to be the same as the Cathai, Beni Kous, who may have been the Kufa of High Asia opposed to Sesostris, the fair-haired nation of the ancient Arabian records, and the present Nesearies of the hills; so early were the invasions from the north-east towards Egypt, and so confused become nations when the ruling tribe and the masses are of different typical forms.

Above the Egyptian races, the Nubian, Nuba, or swarthy Cushite people, were fixed at a remote age, though Syncellus and their own traditions represent them to be colonists from the banks of the Indus; and the claim is countenanced by the local names of Kutch, Gujerat, Cattywar, provinces on the east side of the present delta of the river; and the circumstance, that the Abyssinian kings were, and still are, styled Nagas, while in the most ancient kingdoms of the delta of the Indus or Neel, denominated Patala, the Naga or Serpent was venerated in the capital Nagara, and the people were Nagas

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Tribes of Cushites had fought their way by sea or by land, and formed a great power in Arabia Felix, till the present Arabians compelled them to cross the straits of Bab-el-Mandeb. They returned, however, more than once, to hold dominion in Yemen, carrying the first coffee-plant with them from Africa, and continuing to hold up the commercial prosperity of the country to the time of the Hegira. Since the decline of the Abyssinian empire, subordinate kings still retain the ancient title; such, for instance, as that of Bahar Negash, or king of the plain, &c.* The Nubian people are of the same origin, mixed with Arabs of the Rebiah tribe about Ibrim, and more pure from thence to Tinareh in the hills. It was from this region (Etaush) that queens, denominated Candace, became historical personages;† and the case of the eunuch baptized by the apostle Philip, shows that the Hebrew Scriptures were studied before the advent, even as far up as Abyssinia, and that persons of the progeny of Ham came up to Jerusalem to worship.

To trust solely in the linguistic character of nations, where slavery, polygamy, and where barter and violence alike daily interchange crowds of captives, is at best unsafe; all unwritten dialects, and even permanent nationality, become dubious; consequently manners are greatly varied with the circumstances of existence.

* Apophis, supposed to be the Pharaoh visited by Abraham, may have been a Naga king in Lower Egypt, as his name is synonymous with Python. If he were the Apophis slain by Horus, we would have an approximate date for the known system of Egyptian religion.

† Candace does not appear to have been a proper name, but a title, perhaps a mutation of Khan or Kong. In that case, Thosh or Taush would denote tusk. Etaush, the land of ivory, which would again indicate the ruling power to have originated in a northern or high mountain race of conquerors.

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THE ATLANTICS OR BERBERS.

On the north of Africa many wanderers landed from the sea, and migrators from the valley of the Nile were pushed onwards over the Nubian high land.

THE NUMIDIANS.

One of these seems to have reached that region rather late, if they already possessed horses at the time of their arrival and were the Numidians of Roman history, celebrated for the small and active horses which the warriors rode without saddle or bridle, guiding them with a rod, or at best with a rope passed round the lower jaw. But we take them to have been a distinct and later invasion, and sufficiently evanescent to have passed away into Negro tribes, since the supremacy of the Arabians became established.

THE AMAZIGH,

Or Berbers, properly so called, extending from the Nile to the Atlantic, are now, under the name of Shelluhs, most numerous in the glens of Atlas, where they occupy villages in the south and east of Morocco, with habits not totally lawless nor inhospitable. But several of the tribes differ greatly from them, such as the Errifi of the province of Rif, who are among the most ferocious of human beings, and the Kabyles, Koubals, tribes speaking the Showiah language, which is believed to contain a considerable quantity of Numidian roots. There are other Berber tribes, that are miners, and manufacturers of gun-powder, gun-barrels, knives, black soap, &c. These are again referred to the Numidian people, passing gradually

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into the Poulah and Jaloffs, who, alone among the Negroes, have horses and camels.

THE SUAKIM.

East and south of the Nile this great stem seems to pass into Suakim troglodytes, who are referred to the ancient Kahtan Arabs, black by blood, which, if it be correctly viewed, the filiation of this branch of the Ethiopian stem is marked out from beyond the Indus to the west coast of Morocco. To the troglodyte race belong the Ababde, mistaken for Arabs, though they have the Negro mouth and color, occupying a great space between the Red Sea and the Nile. They are conductors of caravans from Sennaar, and spoken of with approbation.

The Gomera, a relic of an almost extinct and unknown people, still occupy a portion of the district of Rif in Morocco, living in harmony with the Shelluhs, and possibly descended from those marine Celts, who, in early ages, came down the coasts of Africa, where they left the cairns, *peulvans*, and cromlechs, which the Romans at more than one place called *Philænian* altars, particularly those found near Cyrene, and on the salt lake; and there is another, distinguished by the name of El-Uted (the Peg), still existing on the Aguache river, in Barbary. It is perhaps also this tribe of Gomera who speak a Celtic dialect, said to be still intelligible to Welsh seamen, and asserted to be likewise understood on the south-west coast of Spain and Portugal. They are graziers; and it may be observed, that, in Sanscrit, Gomed denotes an ox; Gomera, in this case, like Gwalla in Asia, and Galla in Africa, being denominations for oxman, neatherd.

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THE TUARIKHS.

Though both the Tibboos and Tuarikhs are nearly pure Caucasians, we notice them here on account of the remote antiquity they claim, and the thrifty character they bear; the last mentioned, in particular, are habitually engaged in marauding to make slaves for sale, or in commercial transactions at annual fairs, and conducting caravans to the nations of Soudan, Bornou, and Timbuctoo. The language they speak is not Arabic, is as yet little known, the natives asserting it to be the most ancient in the world. If the Roman Numidians still retain a national existence, it is perhaps among these tribes that they should be sought. The Tibboos, residing in the middle of Negro tribes, between Fez and Bornou, are partly nomads, hospitable and moderate beyond all other tenants of the desert.

We may place here the gypsy tribes, the Zingari, Zigeuner of Germany, Bohemians of the French, Karashu of Kurdistan, who, notwithstanding they speak a dialect of Hindoostan, and betray by their color a positive intermixture with Papua blood, have nevertheless the crania of Asiatic Finns, and are known to have dwelt among the southernmost tribes of that stem before they came towards the west. As they may have detected Finnic words in the Cophtic, since Klaproth discovered several in the ancient language of Egypt, there is some reason for the claim set up by these roving families for affinity with a Nilotic population, since they have a similar right to that of Persia and Bokhara, and kindred tribes are among the wanderers of Northern Africa. They are, indeed, first observed to have traversed portions of Southern Tahtary. Some visited Armenia, Syria, and Egypt; and others, about the year 1400, passed onwards through Poland to Bohemia, and finally extended to England and Spain.

We have hitherto shown how typical and aberrant races of

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man have evidently proceeded eccentrically from the vicinity of the table land of High Asia, so far as the proceeding can be traced by geographical necessities, which in most cases have operated like positive laws, and are corroborated by history when human scripta have recorded the facts. Let us now see how the same conditions of Man's primæval swarming can be traced in the great Caucasian type, of which the eventful career is so much better known than that of the preceding races.

THE BEARDED, INTERMEDIATE, OR CAUCASIAN TYPE,

Is so named, because neither of the two other typical forms is distinguished by a well-grown beard. Intermediate form is applicable with reference to the boreal and tropical position of the other types. The appellation of Caucasian remains likewise appropriate, when understood to apply to the Indian or true Caucasus, or Imaus of the ancients, for by these names the region of Hindu-Koosh and the vicinity must be understood; and it is to that locality careful examination ultimately traces the first habitation of at least the white races of the bearded stock;* for the term *white*, though it is in general sufficiently correct, is still not quite admissible for the whole, since the color varies from pure white down to melanism nearly as deep as a genuine Negro. Albinism is frequent;

* Caucasus of Western Asia is a name transferred with many others from the central region of the old continent. It seems to be derived from Koh-Cas, or Hindu-Koh, and includes, besides that region, also Paropamissus, Emodus Imaus, or Western Himalaya, with numerous and elevated peaks, and the high lands of the Arii or Asii. Kohi-Baba, the apparently highest point of the whole, appears to be the local Kaf of Arabian tradition.

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and both the phenomena of an entire horny skin and of total hirsuteness seem to belong exclusively to the bearded type.

It being to the form under consideration that the tribes class that have peopled Europe and Western Asia almost exclusively, its typical characters are easily ascertained. The beard is neither villous nor woolly, but spreading over the lips, chin, and the whole of the nether jaw. It fringes the sides of the face up to the temples, and is crisp, curly, or undulating, but never quite straight or lank, as in the Mongolian. The skull is larger than in the other forms; it is oblong, rounded, with the cerebral portion more developed, containing from 75 to 109 cubic inches; the facial angle is more vertical, rising from 75 degrees to nearly 90. The face is oval, the eyes large, open, horizontal, the pupils passing from hazel or brown, on one hand, to dark, nearly black, and on the other to deep blue, gray, light blue, and even greenish (pink-colored pupils occur only in extreme cases of albinism); the hair is abundant on the head, curly, waving, or lank, varying in shades of colors from very deep brown to auburn, xanthous, and fiery red, usually corresponding, but not always, to the beard and eyebrows, and sometimes from infancy marked with gray, which, in advancing life, in both sexes, is sure to come on, till the whole is turned white. In general, the hair harmonizes with the complexion, which varies, in the white races, from sallow to ruddy and fair. Health has its influence on the color of the skin, in all races; but in the fair the cheeks are frequently colored; the typical races have the mouth small, the teeth set vertically, the lips not tumid, and more delicately graceful in outline; the nose is more prominent, and the wings less spread than in the other forms of man; nor is the nether jaw so angular. The forehead is broad, often high, the occipital part less developed, and the arch of the cranium less solid.

Man of the bearded type attains the highest standard, is, in general, above the middle size, and in symmetry excels all the others: the arms are in better proportion, the hands more beau-

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tifully shaped, and the feet and toes more delicate, and more obliquely arranged. His movements are more decisive of purpose, more graceful; the poise of his head places the countenance vertically to the horizon.* The shoulders are ample, the chest broad, the ribs firm, and the loins well turned; the thighs, and, in particular, the calves of the legs, symmetrical; the whole frame constructed for the endurance of every kind of toil, being protected in some measure with a partial growth of hair, which is scarcely traceable in the other types excepting on the chest. Thus he is constructed with physical powers equal to his intellectual organization, fitted to sustain protracted thought, — continuous attention, alike excited by an activity of disposition stimulating his brain, which is larger and more fully developed in the anterior portion than in any other form of Man. In the mere animal senses of sight, hearing, feeling, smell, and tasting, the social position of civilized nations may render them, in part, less quick, because they are less called into activity; but the Kaufir mountaineer of Hindu-Koosh, and the Arab wanderer, are, no doubt, equal, if not superior, to the acutest perception of Negro, American, or any other wild race in the world. Again, the Caucasian form of Man combines, above the rest, strength of limb with activity of motion, enabling it to endure the greatest vicissitudes of temperature in all climates, — to emigrate, colonize, and multiply in them,

* A weight being placed on the head, such as when a Dutch milk-maid skates to market, the heavy pail is so poised upon a kind of pad, that it bears equally on the dome of the cranium; so, also, is water carried by the abnormal Egyptian peasantry. In both, the weight rests on the perpendicular axis of the body, through the centre of the skull; whereas, in the Negro, weight on the head is always poised nearer the forehead, and, consequently, the chin is elevated. With the Mongolian and American, the strain appears to be downward, the muscles of the neck being rigid. Weight is carried, not on the shoulders, like a Caucasian, nor on the head, like the woolly-haired races, but by a strap pressing against the forehead and passing to the back. True Caucasians trust to the shoulders and loins.

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with the sole exception of the positive extremes. His longevity is more generally protracted, even in the midst of the enervating habits of high civilization; his solid fibre gives a reasoned self-possession and daring in vicissitudes, arising from the passions, from accident, or from the elements; and his reflective powers find expedients to brave danger with self-possession and impunity.

The moral and intellectual character we find to be in unison with his structure: the reasoning powers outstripping the mere process of comparing sensations, and showing, in volition, more elevated thought, more reasoning, justice, and humanity: he alone of the races of mankind has produced examples of free and popular institutions, and his physical characteristics have maintained them in social life. By means of his logical intellect, he has arrived at ideas requisite for the acquisition of abstract truths: resorting to actual experiment, he fixed bases whereon to build demonstrable inferences, when the positive facts are not otherwise shown; he invented simple arbitrary characters to represent words and musical sounds, and a few signs which, nevertheless, denote, in their relative positions, all the possible combinations of numbers and quantity; he has measured time and distance, making the sideral bodies unerring guides to mark locality and give nautical direction; he has ascended to the skies, descended into the deep, and mastered the powers of lightning. By mechanical researches the bearded man has assuaged human toil, multiplied the results of industry, and created a velocity of locomotion superior to the flight of birds. By his chemical discoveries he has modified bodily pain, and produced numberless discoveries useful in medicine, in arts and manufactures. He has found a sound and connected system of the sciences in general, and acquired a critical literature, while, for more than three thousand years, he has been the principal possessor of all human knowledge, and the assertor of fixed laws. He has instituted all the great religious systems in the world, and to his stock

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has been vouchsafed the glory and the conditions of revelation.

The Caucasian type alone continues in rapid development, covering with nations every congenial latitude, and portending, at no distant era, to bear rule in every region, if not by physical superiority, at least by that dominion which religion, science, and enterprise confer. Constituting, as we here show, the most important, the most elevated, and highly organized type of Man, it becomes interesting to search out the original seat where geographical as well as historical and legendary evidence attest it was cradled, and whence, under the conditions of existence which now surround it, fair induction shows the great races of this stock commenced to radiate in all directions.

Egyptian antiquity, when not claiming priority of social existence for itself, often pointed to the regions of Habesh, or high African Ethiopia, and sometimes to the north, for the seat of gods and demigods, because both were the intermediate stations of the progenitor tribes. The Hellenic nations, when they searched for their own aboriginal source, a part of their ignorant vanity, sought them in the farthest north, beyond the dominions of Thrace, and knew of moral Lactophagi, of gods and sages, among the Hyperboreans, which could be no nearer than the Borysthenes or Dnieper. Ionia and Western Asia claimed those sources of nationality for the high lands beyond the Euphrates, or for Armenia, where the language was partly Finnic, and further north-east on the Oxus, where the forms of speech were still more Hyperborean. Even Delos had three priestesses, natives of the distant north; and Olen, a high priest, whose name is so thoroughly Finnic as to be still common in Scandinavia. But modern research, without rejecting these facts, has shown that they lead, always, to regions still further east, Hindu-Koosh, Cabul, and the Suleimanic range, high lands, probably designated, in a general form, by the Sanscrit name of Ariavartha, — the high, the holy land of the

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Hindoos, whence all the conquering races of the type first brought their heroes, demigods, and legislators; the whole, both of the south and the east, ultimately pointing to Thibet as the cradle of the Caucasian Man.

At the western extremity of the Himalaya chain, beneath the plateau of Thibet, is situated the basin of Cashmere, surrounded on all sides by lofty mountains, and peaks covered with lasting snow. From this region flow four or five considerable affluents, which give its principal importance to the Indus. Where this great stream, by the natives called the Sind and Neelab, breaks from the north through the mountain gorge, commences Hindu-Koh, the real Caucasus and Imaus of the ancients, Kaf, or Kauf, of Arabian writers, a region so elevated that the greater portion is covered with permanent snow. The central mountain system is overlooked by the peak of Hindu-Koh, the culminating point, though others, like Kooner, to the east, and Kohi-Baba, at the western extremity, rise, one more than 15,000, and the other to 18,000 feet above the sea. From the vicinity of the last, the region is bounded on the north by the first feeders of the Oxus, forming another Punjaub, and on the south by the river Cabul, which, passing the foot of the Kohi-Baba (the special Kaf of oriental fiction), flows eastward to the Indus, forming one of the richest valleys in the world for every species of cultivation. Further south, beyond the peaks of Suffeed Koh, commence spurs or prolongations, passing nearly at right angles from the main chain. One, the most western, lower than the other, is the Ghiljee, and the other, more elevated, forming the occidental side of the valley of the Indus, soon rises to a chain, which contains, further south, the peak of the Dove, where, at a remote period, it was already fabled that the ark rested, according to the legends of Northern India. It is not less than 12,000 feet in elevation, and now known by the appellation of Takt-y-Soleimaun.

From Hindu-Koosh, a lofty chain, now known by the name

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of Glaor, continues westward, and is said to have been more particularly the Parvati Montes, or ancient Paropamissus of Ptolemy. Further on, we find another Takt-y-Soleimaun, as well as a third at Och, on the Syr-Deriah, or Jaxartes. All Arabic names in central Asia are, however, of recent imposition. Then we have the Caspian range, leading on to the second, or interpontine Caucasus of western writers. Towards the east, Hindu-Koosh abuts on the Belor ridges, which turn northward, and first present the high table land of Pamere, termed the back-bone of the world. Pooshtu Kur, the most prominent peak in the new direction of the chain, sends forth, from its broad glacier, the grand source of the Oxus, Jeyhoon or Amou, which flows to the west and north; and further on, where the Gakchal mountains curve from north to east, joining the Mous-sour and Thianchan chains, continued fronts of elevated glaciers pass on, in a north-eastern direction, till they subside in the Gobi Desert. From the glacier of Moustach issues the Jaxartes, flowing on to the Sea of Aral. From longitude 70 to 80 east, there are only three practicable passes to the west; all, further eastward, as well as the river, are turned to the north. From the nucleus of Irin Khabirgan, above the sources of the Ile river, east of the city Ili, passes a subordinate chain of high lands, leaving Lake Balkach to the west, and soon after (about lat. 49), turning likewise to the north and east, joins the little Altai, and constitutes a second table land, till it is united with the clustering ranges about Lake Baikal. We need not pursue this description further eastward, but confine our observations, by stating that from the east to the south-west a cross range, under various names, separates the Gobi Desert from the plains of Thibet, a great part of which is still geographically unknown, though here, also, as on the west of the great table land, rivers of considerable size, among which another Ile and the Kachgar Yarkiang terminate in lakes, or are absorbed in the sands, having frequently, in their upper courses, fertile vales and habitable glens.

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It is on and around the regions here slightly traced out, that it becomes evident the filiations of the bearded stock should not be viewed solely through the medium of disjointed texts of ancient writers, far removed from the localities, but where they first began; for, in order to form a fair estimate of realities, it is important to study the local geography, and to become thoroughly conversant with the science of what is technically denominated reading the ground, — that is, of grasping the conditions of every topographical and geographical fact; of appreciating the consequences attendant on residing or migrating across, up, or down, the current of streams; of toiling through snow-clad regions, turning a long range, or finding an approach to mountain passes, through marshes and forests, straits by sea, and straits on land; of migrations to be accomplished, not by hunters, but by tribes who have their families and property to carry with them, and must be able to find food in their progress. In opening thus the book of nature, and learning how realities should be dealt with, there remain many other considerations to be kept in view, such as climate and seasons, periods of frost, of ice, or of drought and monsoon winds. Still more, in order to trace the march of ancient nations, it is requisite to search for marks attesting man's handywork, in evidence of his passage; for troglodyte habitations, sepulchral ruins, and piles of stones, tell also, and more forcibly, of bygone ages, than texts of mere individual authority; nay, they often disprove them, and invalidate remote chronology. In proportion as we may interpret rightly these documents of nature and time, we shall understand human doings in the infancy of society; and when we also call to our aid the religious doctrines, the ancient poetical records, and the laws and legends of a people, we shall find, in general, sufficient data to arrive at epochs in time often more trustworthy than the precise years affixed to events, obtained by reckoning backwards certain astronomical facts, or reigns of kings, which chronologists themselves find means to advance or retard, in order to

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make them applicable to a favorite theory. Our conclusions we shall rarely find at variance with linguistic relations, when these are fairly tested by circumstances. Here we endeavor to trace Man back from known conditions to others anterior to them, but which must of necessity have been in his career, though it may be that they occurred some centuries sooner or later. It is in this manner we find the reasons for assuming that the Caucasian stock, traced up to the earliest period, was nestling in or above the glens of Hindu-Koosh and the neighboring mountain ranges; for there we find it already distinguished in two or three well marked varieties of color, the swarthy and the fair, and subdivided in several secondary shades, each having homogeneous features, limbs, and intellectual capacities. We can even point out the particular geographical localities which several must have occupied; and from what has been stated already in the remarks on the Hindu-Papua tribes, and again on the Caucaso-Mongole or Finnic races, the gradual passage of one typical form to the intermediate. We have, in the remarks upon these subtypical tribes, had occasion to point out the evident possession of Thibet, of parts of China and Mongolia, by the bearded race; and that they are noticed in early Chinese authorities by the names of Kinto-Moey and Yuchi; and still in part are occupiers of the more inaccessible mountains of the interior, bearing the contemptuous appellations of Miau-tze and Mou-laou. Even western geographers were not entirely ignorant of this fact, since by them Gangarides are placed on the Brahmaputra; and the antique presence of Sanscrit, that most extensive of all languages, is attested, by innumerable denominations, far beyond these regions, since we find them pervading the greater part of Thibet and Indo-China.

As the predominant external character, and the corresponding intellectual tendencies of the Caucasian Man are found to assimilate with the other two typical stocks in proportion as they approach geographically to, and mix with them, the inter-

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mediate Ethiopic on the south, and Finnic on the north, have, next to their points of contact, shades of dark-skinned or fair races, partaking of these characters in degree only according to that vicinity; and thence we must look for the normal point of the type where the influence of the other two is, or at least primevally was, least accessible. This geographical point belongs emphatically to Hindu-Koosh, extending eastward up to the Pamere, and westward through Armenia, and the occidental Caucasus to Greece and Italy, notwithstanding the progress which, since the historical ages, the Mongolic diffusion has made in Northern Asia, following a similar extension of the true Caucasians towards the west, after an interval of some ages.

Of the three varieties of color and temperament most distinctly marked in the Caucasian type, the first is characterized by brown complexions and dark eyes and hair, very symmetrical proportions, a round-domed skull, and an intelligence most vividly imaginative. The temperament sensual, the vindictive passions active, the perceptive faculties quick, and the physical energies demanding mental excitement more than reason for exertion. Such are the ardent nations of the south. Opposed to them in form and disposition are the tribes of the north: with a loftier stature, a fair, often a ruddy skin, xanthous hair, rather ponderous limbs, a squarer skull, and coarser features; they have little comparative vivacity, but are endowed with the faculty of thought and reason less under the control of petulant desires; more reflective, and therefore more continuously attached to conclusions once formed; slow, but patient in perseverance; and brave, without requiring the stimulus of enthusiasm. They are sincere and single-minded; but addicted to gluttony and drunkenness. Between these two we find the typical root still more essentially mountaineer in habit, with clear complexions, light brown, auburn, light or dark hair. It has the skull formed almost like the southern stem, but broader in the forehead. By nature and locality

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possessed of the highest endowments of the other two, excepting perhaps the quality of reasoned patience; it is imaginative, poetical, inventive, artful, eloquent, valiant, and indefatigable. It has been the master stem from all antiquity; and, in particular, that ambitious race, which is distinguished by high features, has ever been the conquering, the imperious form, that commands in battle and rules in peace, wherever it is found mixed in the social life of nations. Although beauty, valor, and logical capacity, may not by any means be denied the more vertical profiles, yet mathematical, linguistic, and experimental science belong more permanently to the less admired lines of features. It is by the exercise of these faculties, tempered with forbearance, that the resolute tenacity of the last mentioned maintains its ground, and the public will obtain modifications of the arbitrary canons which the others have imposed.

It is the Caucasian Man, who, in all regions and times, has been the sole depositor of religion. The Papua and Negro races of antiquity do not appear to have possessed creeds at any period deserving to be classed with reasoned allegorical dogmas; they were merely absurd injunctions to commit revolting bloodshed. Even when palliated, remodelled, and systematized by the influence of Caucasian rulers, they continued more to degrade the masters than to elevate the vanquished. Of the Mongolians, we know that the mythological Foh, the Budhas, Fologes, Soloktais, and Siakas, or Sakias, of China and Japan, were appropriated Hindu-Caucasians, Yuchi, or Asiatic Finns. The bearded races alone had possession of a true reminiscence of the diluvian cataclysis, and transmitted it by their colonies to every part of the earth, mutilated, altered, and debased, but still always discernible, notwithstanding that in time the high plains of Asia had first instituted a Sabæan worship, and subsequently implanted it upon the Arkite creed, confounding the patriarch navigator with the sun, typifying the deluge in the form of a dragon or

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vast sea-serpent, and converting the ship or ark into a living organ of preservation and reproduction: thus was substance afforded for interminable legends, names, and dogmas, which, in one or more forms, spread all around, reached the furthest west, originated the repetition of ancient names for new localities, new sites of Paradise, new rivers of Eden, new mountains of the Descent, in the succession of migrations, and when time had fixed fresh centres of national existence.* In this manner, while the Semitic nations recalled the memory of their primeval social abode in the Babel of Babylon, the Egyptians saw their Arkite city at Thebes, or Theba; the Persian Arii found the city of the gods in Pasargade, where the huge palace was again an ark; the Hindoos pointed to Kasi, now Benares; and the western Teutonic nations to Asgard, near the mouth of the Don; while, by the very radiation of these localities, there is reason to believe, what tradition confirms, that the original locality was high up the course of the Oxus, if, indeed, it was not actually within the mountains of Hindu-Koosh, or Bokhara, significantly denominated the High Land of God.

The great mental activity stimulating all the races of this type to physical exertion, has caused the earliest ages to be replete with their wars and conquests. First, probably, they were

* The root, Ar, in Arach, Araxes, Arachosia, Arbela, Arch, Ararat, Arawati, Aarhorn, Aar, and Ra, rivers, ever implies rushing, soaring, as in the Circassian a peak, in Pelhevic a roaring stream, and in Sanscrit denominations abounding in High Asia always connected with mountain and high land: hence we find it often in connection with the physical localities, where Eden and the four rivers of Paradise, as well as the diluvian event, are placed by the traditions of nations. Indian pundits have pointed out Lake Manasa, 17,000 feet above the sea, as the sacred centre whence the four rivers of Paradise, the Brahmaputra, Ganges, Indus, and Sita, are erroneously asserted to proceed. But each nation long located in a region has found a sacred centre, and the required rivers, at no great distance from home. There are at least twenty of them between Thibet and Snowdon.

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directed against the less pugnacious black nations, and then against each other, striving not only for the choice of regions to inhabit for the possession of pasturage and rivers, but to dictate opinions on all questions of human interest; and as the conquerors of one moment were the vanquished of the next, all the tribes, particularly of the west, are exceedingly intermixed; in physical and mental appearance bearing evidence to the fact. It is still more a result of the long continued practice common to all, of buying, selling and capturing human beings for slaves, — the Britons, the Gauls, the Saxons, Germans, Russians, and Hebrews; all the nations of Western Asia, the ancient Greeks, the Romans, the Carthaginians, pagans and Christians, all shared for ages the abominable traffic. The dark-haired nations of the south were choice in searching for fair slaves from the north; the fair preferred more swarthy, and gave great prices for blacks from Africa. Constantinople abounded in Sclavonic captives and children, purchased by Jews; the debtor and the prisoner of war were sold, and Verdun was long celebrated for its traffic in emasculated victims. Hence the fair, the xanthous, the brown and black complexioned, are mixed in every nation.

With regard to the facilities of proceeding by land from the Indus and from central Asia to the west, there is in every direction the difficulty to be encountered of a deficiency of water, and consequently of verdure to subsist cattle. There are extensive deserts of absolute sand, and the coast-line along the Persian Gulf seems never to have been practicable. Beginning from the mouth of the Indus, the first route passing to the west, by Kurrachee, crossed the Luchee Hills to Bambacia, Faura, now Puhra, traversed the Gedrosian mountain chain, and led to ancient Pasargada (Persagarda) and Persepolis. It was by this line Alexander the Great returned with his forces to Persia. The second was by the Gundara Pass, through the desert to Lake Aria, whence again it bent southward to Persepolis; this was the route of Craterus with a

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Macedonian corps. A third avenue still leads through the Bolan Pass to the Etymander or Helmund, and Lake Aria, now Zurrah, whence there is a caravan route by Yezd, through the Great Arian Desert, of above fifty days' journey, for loaded camels to Ispahan. Another passes to the north from Dooshak, near the above lake, by Furrah, to Herat, Meshed, to the Atrack River, and Asterabad. But the fourth of these lines is the great and most ancient route of migration, not so much to the Indus, as from the high table land of Thibet to the Oxus, in remote periods apparently much more available than at present, for the inland sea of Western Asia had not yet entirely shrunk into the Caspian and Aral, and the rivers now lost in sand, or wholly dried up, were still flowing to that Mediterranean. It became the high road from Kachgar by Ota, across the Bolor range, through Karatighin to Bactra, or Balkh, was the great outlet from Hindu-Koosh down the Oxus, or along the flanks of Paropamisus to the west, and by the troglodyte city of Bamean, entered the two passes of Kohi-Baba, by Cabul, and Jalalabad (Nagara), to the Indus. The other great line is through the Kiptchak and Gakchal chains, by the Kaksou and Terek passes, leading north-west to Och or Takti Soliman, on the Jaxartes; it is a caravan route, still in use to Orenburg, in Russia.

THE SEMITIC RACES.

It was along these avenues that the moving colonists descended, both from the plateau of Thibet, and from Hindu-Koosh. We have seen how they penetrated to India; how among other nations the Arab and Indoo Arab formed the principal basis of the Ethiopian stem, till the whole of the original nations, as Egyptians, Cushites, and Habesh, notwithstanding that more northern, and even fair-haired tribes were merged in them, were finally driven across the Red Sea into Africa.

Thus we have noticed how Caucasian characteristics deepen

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into Papua Negroes, in proportion to their intermixture towards the tropics, or brighten as they pass on to the border of this first distribution; for, on the line of contact, the conquering race has nearly retained its whole integrity, whilst on the north of that line, a melanic shade in the skin, with very dark eyes, and black curly hair, leaves in the first, and perhaps oldest civilized nations, an evidence of some pollution with their vanquished slaves, and makes the question of local hybridism incontestable; for, notwithstanding the distinction drawn by the nations themselves, the facts remain unaltered. And we shall now proceed to notice a second wave of more pure Caucasian Arabians, who left but slender record of their predecessors, and became united with the rejected descendants of the family of Heber. They appear to have been herdsmen of the southern desert, wandering with their goats and sheep, perhaps with camels, onwards towards the west, beneath the Gedrosian high lands, till they crossed the Shat-ul-Arab.

THE ARABS.

The original tribes of Arabia, already in possession of the land at the time of the departure of Israel, were of the same race as some of the first invaders of India. They mixed with the Papuas, and formed the Ethiopian stem, which possessed the peninsula of Arabia, as far eastward as the lower Euphrates, expanding more and more over the desert of Syria, where the true Bedoween, the swarthy Ænese clans, chiefly resided; but here they were encountered by the giant race from the north-east, who reached Syria or Shams, and soon appear to have established themselves as masters among them, in like manner as they effected the same revolution in Egypt, and Palestine or Canaan; continuing to press southward, they mixed with the possessors of Yemen, retaining, in some cases only, a separate nationality; such, for example, as the Rus-

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tumi, the Phœnicians, and the Getæ. International wars, and the usual decrease of the fair-skinned master race in climates of tropical heat, caused several tribes to be lost, such as those of Ad, Thamud, Jades, and Tasm, which, being of the more northern portion, were chiefly affected by these causes, and subsequently were vanquished by the Cuthites of Yemen, or were absorbed; and their fate is the subject of sundry marvellous legends in the Tarikh Tebri.

At present there remain the Arab-el-Arabah, forming two stems, claiming Kahtan for common parent. They are perhaps the Hadoram and Tarah of Moses; but it is not to them that Arabia is indebted for celebrity. Affiliated races produced it. The Mostarabi, or Ishmaelites of the Hejas, claim the honor, and assume a superior nobility of blood, as descendants from Abraham. They are the fabricators of the Kaba, and the distorted legends concerning the patriarchs. In that vocation it seems the Koreish have been chiefly engaged, although the affinity they have with the descendants of Ishmael is doubtful; it being believed that they were originally Edomites, that is, a red-haired people. In this vicinity, among the Edomite cities, there was Erech, Raphia, or Rekem, near Mons Casius and Larissa, Larsh near Gaza, both bearing evidently names connected with a Scythic dialect, and repeated wherever Pelasgian nations were spread, from Asia Minor to the Danube; equally common to Celto-Scythic possessions, as the names of Lorch, Lorach, Lorca, Lara, and Larch, abound in Spain and Southern Germany.* Towards the mouth of the Euphrates, however, in the vicinity of scriptural Bosra, the Arabian Zobeir was inhabited by the Orchæni, a colony, it appears, of Indo-Ethiopians, who, Pliny says, promulgated "a tertia Chaldæorum doctrina." They had acquirements in astronomy and science which were regarded as magical. The inhabitants

* Even Nineveh is termed Larissa by Xenophon, and as the easternmost of the thirteen places so named by the ancients. Most of these were of Pelasgian origin.

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still breed white asses, as of old, and appear themselves like low caste Hindoos. Of this ancient capital there are still visible fragments of pillars, &c.; and it may be remarked that Zobeir is more likely derived from a Sanscrit or Scythic root, denoting sorcery, than from an Arab chief of that name, who is said to have fallen near this place, when Ayesha, widow of Mahommed, was defeated by Ali, in the year 656 of our era.

Another source of the Arabian people was derived from the Jewish clans, which, after the massacre in Persia, had retired to the desert, and become formidable by their numbers and warlike propensities. They had apostatized, and united with the followers of Mahommed, and greatly strengthened his forces, notwithstanding that other clans of Hebrews, who retained the faith of their fathers, were expelled by him. Long before that period they had been forced to disperse, in consequence of the successful inroad of a Roman army under Œlius Gallus, who is said to have burst the colossal stone embankment raised to sustain the waters of the Mareb, a very extensive reservoir, serving to irrigate a great district of land. The event is known by the name of the deluge of El Maureb; for when the waters escaped, the whole cultivated surface was swept away, and the wretchedness it produced was among the original causes of the subsequent expansion of the Arabian power, because forced emigrations led colonies beyond the Shat-ul-Arab, perhaps, even then, so far to the east as the bank of the Indus, producing constant hostilities against the Parthians, while other tribes, pressed to the borders of Kourdistan, equally embroiled them with the Byzantine Romans, at a period when the Arabian horse first began to acquire its superior qualities. Ages before that time the Phœnician traders, who were masters in the Persian Gulf and the islands of Bahrein, had no doubt stimulated the Arabs' love of adventure, and from pirates turned their attention to legitimate trade, ultimately becoming the successors of the parents of commercial industry. They traded as they had roved to Madagascar and

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in the monsoons reached not only the marts of India, but, it appears, penetrated by their own efforts, or in connection with a remote navigating system in the South Seas, to the ports of China. For ages the southern portion of Arabia was possessed by Phœnicians and Cuthites: the last mentioned, after they had been driven across the Red Sea to Africa, returned, and again swayed the commercial provinces by their authority; they opposed the progress of Islam, but were at length vanquished, not by the power of the true Arabians, but by the affiliated tribes of Mostarabi, who, with the Koran in hand, rallied all parties in a career of unexampled victory, extinguishing in their progress languages, nations, traditions, and history, to the wall of China, and to the Pyrenees.

Notwithstanding the vicissitudes and intermixture of races, the aspect of the present typical Arabs is a light sinewy structure, with great capacity of endurance, a swarthy complexion, with high lengthened features, black curly locks, and a brilliant dark eye, full of malignant fire. Though not exempt from subjugation, they have survived conquests, because no victorious nation has ever thought the desert a possession worth acquiring.

With the national convulsions the language of Arabia has likewise changed. Ancient Arabic is not only a dead language, but the character and alphabet are equally lost, though it is supposed to have had two dialects, the Hamjar and Koreish, and that certain words and forms of speech in the Axumite tongue of Abyssinia are remains of it.

THE HEBREWS.

Though of all the nations of antiquity this people is best known, and clearly depicted in the most authentic records, the conclusions of the comment on the text are by no means free from objection, respecting the assumed geographical position of the original stem, nor the inference that this people, so far as

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regards its subsequent alliances and interunions, had the right to call itself pure or unmixed. All the tribes descended from Abraham and Lot were of high land descent, migrating through Armenia, clearly in part of a fair rufous stem, gray-eyed, and auburn hair. Evidence of the fact is repeatedly traced in history and in tradition. The manifestation is still positively marked in many Oriental Israelites; and in Morocco, a region least liable to that kind of adulteration, the women in particular being to this day generally gray-eyed. The family of Heber was, therefore, not Chaldean nor Assyrian. It came from the East, and might be of the same stem as that which subsequently invaded the Suleimanic range, west of the Indus, for here was an early national centre, whence colonies penetrated to India, where Hebrew congeners may now be believed to exist; as tribes of Rajpoots, and others, passing on to the borders of Indo-China, may be the present Mugs, for all of these have the peculiar Hebrew aspect and conformation; have even rites and customs similar to that people, as well as traditions and reminiscences, which now assume the aspect of actual descent from the lost tribes of Israel.* These facts establish an affinity too positive for utter rejection. Although we will not carry the conditions of Hebrew consanguinity further than to hint that perhaps the promised high destiny of the race embraced alliances which should include the three great typical forms; first, by connection with the rufous stem, through the Asiatic Finn tribes, who were the Scythian conquerors, at one time in Armenia, and again for ages resident in northern Egypt and Palestine; and in the second, by the long

* The assertion that these Affghans expelled a nation of Kaafirs or idolaters since the Hegira, is more unlikely than that they themselves are converted idolaters; for mountain tribes are not expelled by passing conquerors who have themselves Jewish rites. It is more likely that original consanguinity carried Jewish fugitives among them, whose books and wondrous history caused the whole clan to adopt them as their own.

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unrestrained alliances with the real Egyptian people, as well as with Canaanites during the administration of the Judges; and at a later period with Babylonians, Greeks and Romans.

A most ancient assimilation of the Hebrew people, if not an actual origin among tribes located near the Gomerian source, is indicated by the exiled tribes having shown a greater tendency to mix and assimilate with the Finnic Scythians on the north than with the Arabs on the south; notwithstanding that their language was more positively allied to it than to the Celtic or any Finnic dialect. In the north alone, the ancient Israelite race found honor and power, as was proved by the military energy they displayed against the Persians, noticed in an earlier part of this volume, and again in their connection with and titular dignity among the Khazars; it is even now shown in the respect bestowed upon the Karaite Jews of the Crimea. These views are strengthened by the beautiful spherical cranium of the Jews, as fine as the Arabian or Circassian; by their profiles still predominantly aquiline; by the frequent recurrence of gray eyes, xanthous hair; and by a sturdy structure, less Arabian than Celtic, yet on the whole retaining an Asiatic and peculiar aspect seldom adorned with beauty.

All the foregoing conditions taken together tend to show that the Hebrew race and language were not paternally of a Semitic origin, but that both resulted from the region where the first family came to settle among strangers; and the mixed alliances, in the earlier period of the tribal history, contracted with Egyptians, Canaanites, Arabs, Babylonians, and even Phœnicians, affected it, till in the end they adopted Greek and Roman names. The males of a race cannot alone maintain its purity, and where polygamy exists, the other sex must necessarily change it almost entirely.

In China, Cochin-China, and Malabar, Jews now exist in families, according to the most trustworthy account, ever since they were expelled Persia, in the year of Christ 508. There are in the last-named region black Jews, probably a mixed race

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of proselytes of low caste. Though an older people, the Suleimanic Affghans pretend to be descendants of the first captivity; there is still a clan of them known as the Beni Khaibe in Arabia; and the Falishas of Abyssinia, according to Bruce, are a tribe of Jews; finally, the white race of Zafi-Ibrim, in Madagascar, claim Abraham for their progenitor. The handsomest of the whole nation are asserted to be the Babylonians of Mesopotamia; and it used to be from among them that the prince of the captivity, now the wretched representative of the ancient kings, was and still is selected by the Turkish government.

In all lands they are, as of old, a stiff-necked race, most resolutely attached to their institutions, ever since the Christian dispensation was promulgated. It is difficult to decide whether their own obstinacy of character, or the unceasing injustice of mankind, have been other than agents, mutually acting upon each other, to produce that permanent manifestation in their forms and opinions which separates them from human society, as it were, by a lasting miracle; still the persecuted Jew bears on his front the tokens of mental power, in his make the attributes of physical strength, and in his heart the feelings of mercy and charity, which all the vices acquired by degradation, or natural to his temperament, cannot efface; for since a more humane treatment is afforded to the race, constant examples of good, benevolent and liberal actions embellish their conduct, even more than in the feudal ages their learning and research illustrated their mental capacities.

THE BABYLONIANS, CHALDEES, AND ASSYRIANS.

The nations now to be considered, though differing among themselves, were evidently all of one family, obscurely traceable to eastern Armenia and Atropatene, whence, as they spoke dialects of Semitic languages, it is evident that, like the Arabs, they had come originally from the high lands in the east.

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They were, moreover, advanced in civilization, had solar and astronomical religions, with legends of Fish-men legislators, whose persons and doctrines revealed a diluvian reminiscence, distorted into Indian forms. In their record, the first dispersion of mankind was transposed from the high table land of Asia to the new centre of their own locality, in the plains of Shinar. Shinar may be a repetition of the name of Djeen; and the Bab, that is, Ghaut, Gate, or Pass, was, perhaps, transferred to the collateral signification of a tower.*

For the pyramidal temple of Belus, still visible among the ruins of historical Babylon, has more than one counterpart in Persia, little inferior in magnitude: that particularly of Baradan, situated on the mountain-chain, near the upper Diala, almost south of Lake Van, is remarkable. The remains are of disintegrated brick; and the summit 170 feet high, or only 28 feet less; but it is 600 feet in base, or 100 more than Birs Nimrood,† near the Euphrates. The Babylonian unquestionably had four towers at the angles of the summit, and a broad terrace on one of its faces, with probably a central space between the towers for fire worship. It had walled enclosures, perhaps colossal lions, at the entrances; all which seem to have been common with other structures of the same kind, and notably in the Budh temples of Suka in Java, where every one of the foregoing particularities exists.

* Bab, Baby, in the most ancient sense, a giant. Baby in Egyptian, Typhon, Taifune. It might be conjectured that the pass, or, at least, one of the principal gorges for descending from the plateau of Thibet, across the Bolor range, upon the sources of the Oxus, was originally meant; for at the foot of this commence the glens which lead to Bamian and to Balkh; and the summit is close to Kashgar, near Behesh-Kend; in Oriental legend a city of paradise, seated in a verdant region, on the Chinese side of the summit.

† Birs Nimrood, the temple of Belus, and the temple of Nebuchadnezzar, are the same ruins. The name of "Tower of Babel" is originally a rabbinical inference. There are many other applications of scriptural localities and names in the south-west of Asia, made at random by the Arabs, who, like most other Semitic nations, having lost their own tradi-

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If the Chaldeans had been established in a great kingdom when Abraham entered Canaan, it is unlikely that the Elamite Arabs would be sufficiently strong to make alliances with other princes, and undertake invasions to so great a distance as the vicinity of Jerusalem; and in the Egyptian historical paintings of the conquests of Sesostris, and of Thothmes II. and III., all of which appear to have been directed to the valley of the Oxus, that in these transactions there should be no acknowledged representations of Babylonians, or Chaldeans, either as allies or enemies. They first appear as prisoners captured by Tirhaka; whence it seems that either the Egyptian conquerors never proceeded so far east as the Euphrates, or that the Babylonian empire did not, at so early a date (that is, in or about the reign of Cushan-rishathaim), embrace the upper course of that river, or of the Tigris.* Regarded as a race, they were unquestionably pure Caucasians of the black-haired tribes; and so closely allied to the subsequent Persians, that no distinction can be made between them, as they are represented in the bas reliefs of Persepolis and those of Nineveh, lately brought to light. They have the same ample beards, and abundant curly locks, similarly trimmed. The sculptures represent the same symbolical monsters, the same cuneiform letters, the same costume, the same system of architecture, and the same school of design in sculpture — as if little or no alteration or progress

tions and history, frame new legends out of the Scriptures; and what the Rabbins only misplaced, they distorted to suit their particular national vanities.

* These colored delineations contain, however, a series of nations, most assuredly representing tribes of high-featured Caucasians, and the more vertical profiles of the midland colonies, which can be traced from Indo-Koosh to Asia Minor and Greece. There are fair-haired people, with a blue round spot upon the forehead, like a tribal, or caste mark. They are the Rebo, with ox-hide mantles, and tattooed skins, Cyclopians of High Armenia; and some wear crosses, perhaps Budh amulets; and the Rot-n-no, a giant race, with red beards, chariots, horses, elephants, bears, and manufactures in metals; or people of the giant races, Scythæ or Finns.

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had taken place in the national civilizations, between the periods of splendor in Nineveh and the downfall of Persepolis.*

THE GAURS AND PERSIANS.

WHETHER the Chaldeans, or Chasdim of the Hebrews, were only hordes of robbers at the time they are placed by geographers in Arabia Petræa, or whether they were a distinct people from the learned caste of Chaldees at Babylon, is not quite clear, though in either case they must still be regarded as mountaineers before they were established in Babylonia. The physical characters of the Assyrians, and their locality, alike attest that they, the same, or a kindred race, were also mountaineers, who had migrated, by marching along the flank of the Caspian chain, till they established themselves in eastern Armenia; but whether they were allied to the Karduchi, Kurds of the present time, does not appear, although, in Persian tradition, the Gaurs were the first conquerors of Aria or Iran. The name, again, indicates mountaineers or giants; and the region whence they departed was no doubt Paropamisus, or the Gordii Montes. In that case, they passed most likely by the Helmund to Lake Zurra, and spreading over Aria, they

* The sculptures of Nimrood, now in the British Museum, indicate a more ancient, though not an essentially different period. Of Bactra we have no minute knowledge, though, from the still existing practice in Cabul, palaces under ground were no doubt likewise constructed there, where the climate is still more severe; and the similarity of condition with Nineveh is proved from the fact, that it was at the siege of Bactra Ninus himself died. His ambitious wife, Semiramis, succeeded him, and was the conqueror of the *Omool Belaut*, or "mother of cities," once the capital of Kai Kaus, when it was named Sarias, or Sariaspa? Future research at Ecbatana, that is, about the present Hamadan, and on the sites of other primeval cities of Upper Asia, will, no doubt, reproduce subterranean habitations like those of Nimrood, and reveal conditions of art more perfect in the older than in the subsequent periods.

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were ultimately driven forward to the present Kurdistan, probably by the Persians, who in their turn had been tenants of Bactria; for all the traditionary events of the first dynasty are referred to the time when they were expelled by the Ou-sun, fair-haired tribes from Thibet, or by Massagetæ from the north.* They, too, had traversed the Paropamisus, and, following the Helmund, had crossed the Arian Desert to the hills of Susiana, where they absorbed the Elamite bowmen; located their sacred centre at Persagarda, and, further west, built Persepolis,† where the great empire of Persia properly commenced. The city and palace were constructed according to a system of architecture already long established at Zariaspa or Bactra, or in conformity with one common to the whole vast region of Nineveh, Babylon, and High Asia. The ancient Parsi language shows, however, a certain affinity with the Assyrian through the Pelhevi, introduced by the Medes, and an adopted civilization, in the use of a cuneiform alphabet. This character continued to be used for inscriptions after the overthrow of Darius, and was revived during the Parthian sway, although another dialect, namely the Zend, was spoken — a fact which attests the presence of a further Sanscrit element, approaching still nearer to the early Gothic of the west, and a tongue even now in part mixed up with the Poushtoo, used by the Affghans. The Belooches and Poushtoo Affghans, the Kurds of Kurdistan, the Loures, the modern Persians, and the Ossetes of Circassia, are all branches of this great stem, which, in ancient and in more recent ages, has held dominion over Egypt, and produced some men of great military celebrity (such as Saladin

* The Ou-Sun, and Kian-Kuen, or Kakas of Chinese writers, were, according to Klaproth, fair-haired races within the western borders of the high land chains. The Massagetæ, first known on the outside of the same table land, gradually moved down to the north-west, and were for a period stationary on the south and east of Lake Aral. They were all Geta tribes, or clans, with Finnic intermixture.

† If indeed Persepolis, Pasargada, and Persagarda, are not the same.

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the Great); geometricians; and in particular, poets of lasting reputation.

THE TYPICAL CAUCASIANS.

We now come to the typical Caucasian family, which embraces the greatest celebral development in width and depth, combined with the highest form of beauty, strength, and power of endurance, coupled with a nervous system less swayed by impulse. In this group are found the most perfect notions of the ideal beautiful, of relative proportion in art and in literature, of logic and of the mathematical sciences in general. The skull, though somewhat lower in the dome, is broader in proportion than the Arab and the Hebrew, more developed at the forehead, making that line more continuously vertical down the nose, which, in the finer specimens, is not aquiline, but straight. The complexion is clear brown, with mostly dark-brown hair, passing to auburn, generally straight, the beard full, the chest ample and deep, the loins small, the gait erect, and the tread martial. It is here that female beauty is possessed of the highest human loveliness, grace, and delicacy; and the manly character attains the most majestic and venerable aspect.

The primeval focus of the family is traced up to the highest glens of Hindu-Koosh, the real Imaus and Caucasus of antiquity. In that region, or possibly still higher, in the most elevated portion of ancient Turan, the *Cassio-regio* of Thibet, Cassar, or Cashgar of Marco Polo, it is that we must place the primeval point of departure; for there, in a verdant fruitful region, a Behesh, or Paradise, according to Iranian nations, is placed Ardukend, Ordukend, still more anciently Arthurkeind, and now known as Behetseh Keng or Keind. It has still ruins of arched avenues, the work of ancient kings, and the locality is on the caravan road, on the north side of the plateau of Pamere, eastward, going by Cashgar to China; and

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westward, down the Bolor range to Hindu-Koosh and Balkh. In these mountain ridges the Kaufir of the present time retains the full vigor, independence, and beauty of his earliest progenitors, notwithstanding that he is hunted like a wild beast by Moslem half-bred tribes, and debarred all access to more civilized nations. His similarity to the ancient Greek nations is so striking, that it was believed the hardy mountaineers were a relic of a Macedonian army left in the country; nor was the supposition a wild fancy, since dynasties of Greek princes have ruled in Bactria, and in Candahar for several centuries after the memorable invasion of Alexander the Great.

THE KAUFIRS, OR MAMOGES.*

It is in the fertile glens of lofty ridges of pine forest, forming a portion of Hindu-Koosh and Beloot Tauch, that this people resides, though as yet little known. The true national denomination of it is not even certain, and instead we are obliged to rest contented with the Mahommedan vituperative term of Kaufirs, or infidels, which the Affghans use to designate idolaters. They divide them into Speen, or white, and Seeapush, or Tor Kaufirs, merely because one is habitually clothed in white cotton, and the other in black goat-skins. The people is divided into a multitude of independent clans, living peaceably together, but in unceasing war with the Moslem, much like the Montenegrins in Europe, who carry on an exterminating contest with the Turks. The Speen Kaufirs, having Little Thibet on the north, Ladauk east, the Punjaub south, and Poushtoo west, have to guard themselves only on the side of the four passes leading from the Punjaub, one from the Affghan side on the west, and two from the north, there being none on the east.

* Of the four original tribes, the Mamoges alone retained the primitive manners; the Camoze, Hilar, and Silar, becoming Mahommedans, and mixing with other Islamized nations.

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By the direction of these, migrations had easy communication from Thibet, and towards Cabul, or down the Oxus as well as the Indus. The Seeapush appear to be still more remote, and may extend to Cashmere. These tribes are remains of a considerable people, among whom were the original Cashmerians, and a great part of the inhabitants of Badakshaun and Cabul, as far south as the Deggaun tribes, and on the southern face of the higher ridges of Himalaya, extending eastward to an unknown distance; for, at the sources of the Jumna and Bunderpoosh, clans of Bisharees are blue-eyed, and often have red hair; but nearly the whole of these, being subjected by Moslem conquerors, have lost their pristine individuality of national character, though among the Affghan tribes of Cabul, in particular, it is still not unfrequent to observe heads and figures that might serve for models to sculptors who would portray a Jupiter, or a Mars, according to the refined idealism of the ancient Greeks.

The Kaufirs have the face oval, the brows well arched, and the nose and mouth even more refined than the Greek. They are moreover, still fairer, generally with lighter hair and gray eyes. They defend their fastnesses, whither they have retired since the Mahommedan conquest in 742 of the Hegira, with obstinate valor, attaching certain privileges to him who slays an Affghan. They still retain a rude idol stone, denominated *Irmtan*, representing Imra, Dagun or God, the Supreme Being, having besides inferior divinities, evidently borrowed from other nations, chiefly from India. They shave the hair, excepting a tuft in the middle, which, when it is plaited, is exactly similar to the older statues of Horus, when he is holding the Egyptian hoe, and recurs again on a coin of Comana, where Perseus is so figured, and again on one of ancient Tauris. It is the glib of the ancient Irish. The Kaufirs sit on stools, and do not squat like other Asiatics. They are vehement dancers, and a kind people.

Blending with the nearest black-haired tribes the Mamoges

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may be considered to have formed the ancient Persians, and with the fair-haired on the north, produced the handsome tribes of the earliest Goths; for immediately towards the west the line of migration through Cabul is found interrupted by invaders from both sides, and history is full of the contests which very different nations have maintained in that region. There are even now found, upon this line, remaining tribes of Persians, Usbeks, Toorkees, Mokrees, Reekas, Kalmucks, Arabs, Kirguise, Hindoos, Punjaubees, Cashmerians and Lesghis, which last are among those most nearly allied to the primeval stock; for, after traversing the space disturbed by migrating collisions, chiefly Turkoman, we find these and the Circassians, Abassians, Georgians, Albanians, &c., likewise refugees, in the highest glens of the Caspian Caucasus; and, in remote ages, there is no doubt that some of them once extended along the southern coast of the Caspian and Georgia, onwards to the Borysthenes, and through Asia Minor to the mountains of Thessaly and Greece.

THE CIRCASSIAN AND GEORGIAN TRIBES OF THE CASPIAN CAUCASUS.

While others, coming more from the north, with, as it appears, a portion of Finnic blood in their veins, held possession of the plains on the Kouban and the Don,* these extended westward, in the Crimea, and along the shores of the Euxine, until they were in part swept onwards, and partly driven back to take shelter in the fastnesses they now hold. The Don Cossacks are of the same stem, for although all the tribes are, in various proportions, of mixed origin, the typical form is always evident.

* Although the banks of the Borysthenes are known to have been successively inhabited by Alans, Goths, Geti, Cumans, Polowtses, and Roxolani, the antiquities known to have been the work of Circassians are still found scattered through the country.

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The women of Circassia are beautiful, probably the most beautiful, in features and complexion, of the whole earth. They have, often, light hair and blue eyes, tall, graceful, and erect forms, with straight or slightly aquiline noses, well formed lips, and beautiful teeth; while the men justly pride themselves on their broad shoulders, slender waists, expressive features, stalwart height, and martial gait. Indeed, this inherent superiority of form is so dominant, that the unceasing practice which the Osmanli Turks have of purchasing female slaves of this race, has caused them to have become, from the most ill-shaped and wretched-looking of barbarian Mongoles, a people that can now dispute the palm of beauty with the handsomest of Europe.

For, and with these nations, commencing in Central Asia, Kaufirs, Affghans, Georgians, Circassians, Cossacks, tribes of Asia Minor, Greece, Rome, and the Gothic people of the north, on to the west of Europe, there are ever sympathetic feelings, an enduring interest, independent of religious motives, political considerations, or commercial purposes. In England, especially, we feel for them more than curiosity, travel among them, overlook or palliate their barbarism; nay, so strong and deep is the inclination, that among British captives made during the disastrous winter months in Cabul, most spoke highly of the urbanity they had experienced; several of the softer sex felt unwilling to be released; and some, it is said, actually escaped from those who were to restore them to their homes. Nothing but original consanguinity could reproduce such effects. To that cause alone we must ascribe the long duration of a Macedonian monarchy subsisting for so many generations among the most warlike people in existence; and, in more modern times, that the fierce bigotry of Islamism has not obliterated that tendency; for, beyond this line of consanguinity, the Tahtar race, now in possession of Thibet and Bokhara, or the Arab on the south, never excite similar affections, nor feel themselves yearning for approximation.

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THE PELASGIAN, DORIAN, AND HELLENIC TRIBES.

Although Ionia or Asia Minor was visited from the most early period by nations coming from the east, some by a northern, and others by a southern route, we may regard the population in general as emanating from the foregoing, and in particular the Pelasgian and the Dorian tribes, which, however, may have been mixed with a proportion of Getic clans, such as the Phrygian undoubtedly were.

It is likely that the Carians were similarly of a mixed origin of the same source, as they were remarkable for the hoarse guttural language they spoke, and the resolute determination they evinced in the defence of their country. As colonists they had brought with them elements of civilization more advanced than the Grecian of the same era, and science in the art of war that made them more than respected by the Egyptian power, which, indeed, had warred with them, but appears to have preferred to have them as allies. They seem to have possessed the whole valley of the Meander long after the adjoining tribes had been driven onwards, probably because the volcanic territory at the sources of the river afforded sites for strongholds which guarded the passes. They and the Lycians had connections with the Leuco Syri, as well as with the Greek Pelasgians; and some such remote affinity may have been the basis of the claim to consanguinity, which, ages after, appears to have been allowed between the Hebrews and the Spartans, as is attested by Josephus.

Among the expelled nations, the Hellenes may have been the foremost who crossed the Bosphorus, and made conquests of the possessions then held by a Finnic, or Illyrian race, which, as myrmidons and helots, we have already noticed; for that these were in anterior possession of the soil is attested by their subjugation, and by the name of the river *Alpheus*, evidently derived from the Finnic Alf, a mountain torrent.

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The Hellenic tribes could not have been long in the land before the great swarming commenced on the seas and coasts of Eastern Europe. Besides the Cyclopeans, who left walls of their work from Van in Persia westward to Sicily, and the Punes, or Phœnicians already mentioned, others, like the Cadmeans, Etruscans, and Colchians, wandered along the shores, from beneath the high lands of the present Abassia, or came under Ionian Taurus to the Mediterranean, all similarly bent upon forcing a landed possession for themselves, and subsisting meantime as sea-roving pirates. The names of the Centaurs and Lapithæ indicate confusion in the Greek reminiscences; for, although they explained the first to have been horsemen, it is more likely that they were ox-riders, such as have been already mentioned in Africa and India, and that their name has passed to a second invasion of real cavalry.

But the Thraco-Pelasgians, the Heraclidæ, and Achæi, seem to have been Celto Scythæ, that is, likewise of Illyrian or Geto Finnic affinity, belonging to the giant races, who, as far as regards the two first mentioned, came round from the Kouban and Don, along the shores of the Euxine, and then sought conquests towards the south, as all the more northern nations were impelled to undertake. On their own national origin, the accounts by Greek writers are confused and contradictory regarding the sources and movements of the different tribes of the nation; and vanity claims aboriginal possession where they were only early conquerors. They commemorate Pelasgian and Dorian invasions coming from the north, while they do not seem to acknowledge that the anterior Hellenic colonists were, like the myrmidons and other tribes, a vanquished people, who may have had Finnic consanguinities. The presence of tribes from the Asia Minor region is shown in the Cretan colonies settled in Greece, and in the Cretan people themselves, who could not have reached that island more conveniently than by crossing from Caria, by Rhodes and

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Carpathos; for even the maritime shore of Caria was called Doria.

Notwithstanding that polished Greece claimed to be in the centre of the world, and assumed for itself the discovery of almost every element of knowledge and civilization, it had a secret pride in the pretence that the Cadmeans and Thebans were colonies from Egypt; and it may be conceded, that in the wanderings of the parent clans of those denominations, they had been to the south so far, as to remain for a period in the then unclaimed marshes of the Delta, or had resided some time on the coast of Palestine or Syria, which was on many occasions considered as a portion of Egypt. But on the banks of the Nile no civil war, historically known, brought vanquished fugitives to the north; they fled to Abyssinia, or westward towards Cyrene. No true Egyptian was ever known to travel northward, though Greek students and philosophers constantly went in search of knowledge to the regions of the Nile, or eastward even to the Indus. The slight resemblance of the Greek Theban rites with those of Egyptian Thebes was more likely a consequence of Hellenic importation; and the Cadmean Python worship was derived from the same source as the Colchian and the Celtic, that is, came direct from the east. The alphabet was totally distinct, and the language of Cadmus, if not Semitic, was allied to Sanscrit.

The Pelasgi, more properly so called, had resided on the coast of Asia Minor. If we take a Celto Scythic dialect to have been in use among them, the tribal names of Cranai in Hellas, as well as that of Cieropidæ, might have reference to their migratory life in boats, while the general appellation may have indicated the character they assumed of heroes or champions, it being alike traceable in the Pelhevi, Pelwan, and the Celtic Pulvan, although, if the denomination had a more Gothic root, the Pelasgi would merely denote skin-clad Asi, nearly the same signification as that of Seeapush Kaufir, and peltry-wearing heroes — a term in later ages applied to the

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Goths themselves. The Achæi, though they claimed to be of the Pelasgian family, and the oldest of Greek colonists in Europe, came from the Mæotic estuary near Colchis. They were, as the name indicates, serpent worshippers, or builders of Dracontia, like the Cadmeans, the Colchians, and other nations of Asia Minor.

THE TIRYNTHIANS.

The Tirynthians, referred to the Cyclopean race, seem to have been a still more early clan of the Pelasgian family; and it may be remarked that a fair-haired nation, with a blue round tribal spot painted between the eyebrows, is represented on Egyptian monuments, wearing mantles of peltry, apparently cow hides — a costume which corroborates the meaning of Pelasgians; but as they wear ostrich feathers in the hair, it is evident that these figures refer to clans who had forced their way to the south of the mountain chains; and, if they do not represent giant tribes of Palestine, that they possessed territory in Mesopotamia, and belonged to that Teutonic race which mixed early with the Arabs before noticed. These observations are not opposed by the actions of the legendary Hercules at Tiryns. The Heraclidæ were of the same Pelasgian stem; and if the name be a mutation of Erck, Erk, they may be fairly referred to the Giant Finns, whose tribes constituted the Tyrhenians, the Raseni, and the subsequent conquerors of the north-west of Europe.

The Ionian name is of later introduction in Greece; it was probably before known in Asia Minor, although, if we trust Greek pretensions, they carried it from Europe to Asia. The European Greeks had, however, anteriorly been known by the name of Ægialeans, or coasters, which is an evident proof that at first they only occupied the sea coast, and, consequently, that they had come by water, and not across the Danube, through Thessaly. Among these, the Cretan colony led by Rhadamanthus, whose name indicates a Getic origin, had settled in Bœo-

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tia. Tiryns itself was the abode of fishermen, and Argos was built by Cyclopeans, notwithstanding that Euripides calls it Pelasgian. This last name appears to be more generical than the other, and to have superseded it, though it is not improbable that the Cyclopeans were likewise a distinct tribe of the family which was soon driven forward to Sicily, where we have already pointed out that they appear to have been connected with the Finns of High Asia, in their quality of miners and metallurgists. In connection with the kindred Siculi, they had settlements on the coast of Italy, and with the Sicani, another clan of the same stock, had penetrated to Liguria and Spain. In Greece, the Pelasgians appear to have constituted the chief portion of the historical dominant population. They were most numerous in Thessaly. The Perhæbians, Caucones, Dolopians, Athamanes, the Helli, and Graii, on the west coast of Epirus, were Pelasgi. The Pæonian and the Cecropian Athenians were of the same stock. In the peninsula they were known by the names of Argives, Achaians, and Arcadians. They built more than one Argos; and if the name of Larissa is to be taken as a sure indication of their presence, they would be found extended from Nineveh to the confines of Egypt, Spain, and Southern Germany. There were Pelasgians in Crete, and the western tribes of the race had Finnic affinities in Upper Italy, not less than at least a partial community of opinions and speech with the Celtic and Scytho Celtic nations. In Syria they may have constructed the enormous ramparts of Tortosa with stones, some of which are not less than thirty feet in length, by ten or twelve in thickness, and at so remote a date that the place is named, in Genesis, by the designation of Arpad, or Arvedi, (chap. x.)

Thrace, Macedonia, and Thessaly, being all to the north of Greece properly so called, and west of the Bosphorus, nations moving to the south came across the Danube, from Dacia, as well as from Asia Minor, without the route of their movement being known in Greece. Many came westward in fleets of

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canoes, from the Euxine and the coasts of Asia Minor, by Rhodes, Carpathos, Casos, and Crete, and therefore they became greatly mixed by the captives they made in piratical wars, as well as by peaceful alliances. The noble typical races that had come direct from the east, had been broken in upon during the march by northern and by southern wanderers, and forced to deviate from the line of progress by deserts, inland seas, and chains of mountains. Still the characteristic superiority of aspect remained, even to the furthest marine colonies they carried to eastern Italy, and to Massilia in Gaul; and their intermixture was a further cause of the high civilization they soon attained; for national prejudices broke down by communion with other tribes, and the bigotry of conflicting superstitions, unable to establish particular supremacy for one, adopted a general amalgamation of the whole. Hyperborean gods and Egyptian gods were blended. The recondite symbols, pregnant with meaning in the east, became west of the Hellespont mere fables and physical personifications, attractive to a people petulant with a luxuriant fancy, and so elegant in poetical worship, that it passed to other and more gross conditions of society, such as the northern Africans and the Romans; it spread among Celtæ, Iberians, and Getæ; all striving to recognize their own divinities in the disguised physicalities that came thus recommended from a polished people.

THE ROMANS.

THE western Pelasgians, sometimes considered as the descendants of two great colonies coming from Thessaly and Arcadia, penetrated very early to Italy, a land which looms on the horizon from the heights of Acroceraunus. In both countries we detect the same names of tribes and places, such as Chaones, Elysinians, Siceles, Acheron, Dodona, Pandoria, &c.; and if we judge the affinity of nations by their mode of building with huge stones, even the Etruscans were in part of this

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stock, the rest being Illyrian or Finnic, as we have already noticed. The Pelasgian element, no doubt, furnished the basis of all the arts and legends, which we find they possessed in an eminent degree; and the huge stone-built ramparts of many cities in Italy, as well as Epirus, Greece, Crete, and Asia Minor, attest the work of kindred civilization. Among these, Rome itself was a frontier fortress in the Campania, not improbably known by a name equivalent to Valentia, before it received the present denomination, which, it may be observed, means the same thing in one of the dialects spoken among the Latin tribes. Valentia was probably derived from the same root as Valum and the Teutonic Walle. The Pelasgians left also colonies at Norba, and among the Volsci, Hernici, Marsi, and Sabini, tribes having all names and characteristics of a Getic infusion in their dialects, and indications which show, like the first named in particular, affinity with the Belgic Gauls, chiefly with the Volsci, Tectosages, and Arecomici. The word Volsci, Velkœ, Wilci, Teutonic Volke, is generical for people; and the different tribes had each a particular designation. That of Italy was known by the appellation of Aurunci, from *Awe*, the Vale, or open country; and the two others, as above, had names equally resolvable into Teutonic meanings. Nor is this singular, since Teutames is the oldest known hero of the Pelasgian race who ruled on the coast of Caria; and Hera, a goddess revered at Samos, may denote simply the Lady, and be the same as Hertha, Ertha, or Orsiloche, in Tauris. There are the names of Circe (Kirke), and Falaces, the double divinity and pillar gods of a great number of nations; with many others, all derived from Getic, or Teutonic dialects. The Romans, properly speaking, did not compose a homogeneous race. They were, still more than the Greek people, a compound of many tribes, it is true, more or less remotely allied, but still concentrated on the Tiber from distant quarters, the result of distinct colonies and successive arrivals. Among these, the so-called Trojan basis of the

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Roman population is not more authentic than that of Antenor on the coast of the Adriatic, though popular legends are seldom without some basis of truth; and that Asia Minor contributed several tribes of migrators to different parts of Italy, can scarcely be disputed.

Of all the Roman nobility, the Julian family alone was considered to be of indigenous origin; the rest were Pelasgi, Etruscans, Sabines, Siculi, and others from the hills, whose parentage is unknown. Although they were mixed with fair-haired tribes, the aspect, profile, and structure of the Roman, has greater resemblance to the Persic aquiline-featured race than to a Celto Scythic type, notwithstanding that the Arabian name for the people, probably derived from the appearance of the majority of the foreign garrisons in the eastern empire, in general composed of northern levies, was *Beni Asfar*, that is, fair-haired, "as of Esau." If any relics of the Roman physiognomy be now traceable within the boundaries of the once mighty state, they must be sought among the mob population of the city beyond the Tiber, known as the Transteverini; for they still bear the animal square-built form, observable in the statues of ancient Romans, with the aquiline features and deep-set eyes, bespeaking power and daring. Elsewhere they have vanished, and they never can have been numerically prominent where there was more of a class population than a real nationality; Rome, during the degradation of the empire, becoming a city of foreigners, and the older civic inhabitants scattered over every part of the empire, in search of lucrative office, or possessing all excepting the military, which was exclusively in the hands of strangers. The true Romans had therefore disappeared before the state itself was extinguished, and, even in Constantinople, scarcely a family of Roman descent appears prominent during the eastern empire.

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THE CELTIC NATIONS,

Often designated by the appellation of Gomerians, may be regarded as amongst the very earliest migrators that left the high lands of central Asia, and moved not only in tribes towards the west, but likewise, as we have before shown, penetrated to the extremity of India; and if we accept as theirs the monumental structures, composed of very large stones, placed in a particular form, such as are exemplified by what are known in Europe by the term Druidical, they certainly visited the South Seas and the coasts of China, and penetrated to North America. By what inducement they became a nautical people in the east, and under what denominations they were known in Austral Asia, are questions probably beyond the attainment of research. It is, however, rather singular that the tribal appellation of *Gal* is common to many clans of Australian savages; and *Galla* is still more extensively spread in the east of tropical Africa. In the peninsula of India, we have pointed out the Pandoos of remotest antiquity, with their cromlechs, and an Arkite worship evinced in their genealogy; and, towards the west, we have them often greatly mixed with other races, in Armenia, Circassia, Asia Minor, Ancient Greece, the Bosphorus of Thrace, Sarmatia on the Baltic, in Scandinavia, on the Danube, in Friesland, in Britain, Gaul, Italy, Spain, and Northern Africa. They are thus known by distinctive names, Celto Scythæ, Celto Cimmerians, Cymbers, Belgæ, Vulci, or Volsci, Centomanni, Celtiberii, Gallaici, Gallati, Galli, Galli Comati, Galli Cisalpini, Britanni, Caledonii, Iberii, Hiberni, with an infinite variety of tribal distinctions, and names of subordinate clans. Collectively, they have been named Gomerians, perhaps without sufficient reason, though we retain the distinction, so far as relates to tribes of this family anciently resident in the south and west of Asia; but as there are numerous indications that among the first migratory tribes portions, such as the Cimmerii and Cymbri, directed their course

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to the north-west, and mixed, to a great extent, with Finnic and Getic nations; we are desirous of distinguishing them from all others, collectively, as Celto Scythæ, or Celto Finnic, and more distinctly, by substituting one or the other of the above names. Their probable movement down the Oxus, and passage to the Oural mountains, and thence by Russia, Poland, the Baltic, Scandinavia, and Denmark, into Friesland and Belgium, has already been partially noticed; and taking the so-called Celtic mode of erecting monuments, altars, and tombs, with huge stones, on the surface of the earth, or hidden in cairns and barrows, as proof of their presence, we have in more than one place pointed out that they must have been seamen on more than one occasion, have traversed great portions of the South Seas, and left the evidence of their toils on the coasts of China as well as America.* That these massive structures are not the chance-work of races of unallied nations, is plain, from the fact, that among nearly one hundred and fifty cromlechs, logging-stones, masses of unwrought rock, cleared away to constitute them into colossal idols, circles of stones, parallellitha of linear or curve-linear ranges of upright stones, single maen stones, mysterious caves for worship or initiation, shealings, &c., the greater part whereof we possess drawings, we find that they are placed more or less in certain territorial regions, where they form groups or lines leading from one to another. Thus, in particular, those bearing the character of cromlechs pass down the west side of the Indus to the sea; then divide, one line eastward, following the coast to the Coimbatoor as before noticed, and further on to China and the islands of the Pacific; while the other, forming two branches, one follows the mountain chain to the Caspian, the other by the Helmund, through the desert of Iran to Persepolis, and up the Tigris, till it meets the first on the high land of Armenia, where

* In the atlas of Messrs. Quoy and Gaimard there are some delineations of these seeming Celtic structures in the South Seas not before noticed.

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they become directly referable to Cyclopean and other Celto Finnic tribes, and pass from both coasts of Asia Minor along the two shores of the Mediterranean, up the west coast of Spain, and by the Alps and Cevennes down the Loire to the sea, where both unite again, and then skirt the ocean towards the north, cross over into Britain, the final extension ending in Norway.* With the exception of a few observed in the United States, no monuments of this class are detected in any other direction. If we now inquire from whence the constructors of these peculiar monuments originated, it is clear, that tracing them back to the points whence they branch off, and then further up to the ultimate limit where they are found, though even then there may be traces of them not as yet discovered, we have a proximate solution that they commence either beyond the crest of the central high land of Asia, or at least that they are to be found about the Indus, before that stream escapes to the open plain; that is, again, about Hindu-Koosh, and in the vicinity of certain significant local names, such as Penghir (Pen-y-ghir), Carura, &c., bearing Celtic meanings. It is the region west of high Kashgar, north-west of Cashmere, the vicinity of the first known station of the Pandoos, or Pandei. It is near the first great central sacred troglodyte city, Bamean (Adrepsa), and not far to the north from the first commencement and divergences of the characteristic cromlechs; for it is along the southern flank of the Paropamisus that they pass on northward to Armenia, while another descends the Indus to the sea, and thence branches both eastward and to the interior of Southern Persia. From this vicinity we find also that the oldest pagan diluvian legends have radiated;†

* We have thought it right to repeat a part of what had already been stated on this head, because here, in particular, it connects the various tribes of this common family.

† Compare the third Avatar, where Prithivi complains to Vishnou, with Davies' "Celtic Researches." Appendix, "Preidder," "Anmon." Still more, No. 12, of ditto, page 563, where some lines appear to be Etruscan.

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for those of America, of the South Seas, of Tahtary, and of the north and west of the old continent, are all cognizant of the Dragon formula, the Dragon fish, the serpent devouring the sun, the moon, and the woman, type of reproductive animal nature, by which the mysterious doctrine is conveyed.

We find the legends of an Eden, a city of the gods, an oasis of bliss, with its four rivers, equally mystified and distorted, from the Brahmaputra to Ireland, and a succession of Ararats, from the Himalaya chain to Snowdon.* From India to the German Ocean, there are at least eleven, with a series of subordinate localities, more or less complete, assimilated to the narrative of the Pentateuch, in proportion as the Hebrew Scriptures had been accessible, and in particular among the Arab nations, rekindled by the spreading of the Koran. In point of date, it is known, that both in Italy and Britain the Celts were possessed of the soil before their husbandry was acquainted with either barley or wheat corn; acorns were the sole farinaceous food then known. Greek and Latin classics relate the travels of Ceres, and lessons of Triptolemus, as well as Welsh poets the first introduction of cerealia in Britain.

Enough has been said in former pages respecting the movements of the most eastern branch of these colonists; their wars,

* Pagan tradition scarcely separates the creation from the diluvian legends; paradise from their cities of the gods and primeval abode of man; their umbilicus, or navel of the world, from the mountains of God, of the descent, of the deluge and the ship; a locality usually made the centre of the world, according to the position of each nation asserting that doctrine, and accordingly by each surrounded with sacred rivers and hallowed localities, without therefore being in the least scrupulous about geographical truth or much coincidence of opinion. Scriptural commentators on the geographical relations of Assyria and Persia with the high lands of Asia, have generally sought the easternmost in Armenia instead of Bactria, though profane history and research agree in the fact, that these two regions have been in constant relations of war, trade, migration, and conquest.

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probably of several ages' duration in the peninsula of India, and of others still more remote in date, who appear to have reached the south-east coast of China, and traversed a great portion of the Pacific. There were others whose early presence in Africa is detected by a variety of customs among the Abyssinian and even Caffre nations, which we have likewise no further occasion to mention. Of the tribes of Shelluhs in Morocco, whose Showiah dialect is asserted to retain many Celtic words, it is not requisite to say more than what has already been stated, excepting that the existence of cromlechs and maen stones along the coast, such as the Romans noticed by the names of Philænian altars, and the ancients likewise attest to have existed on the island of Cadiz, or Gades, in Spain, are of themselves sufficient proof of a primeval coasting progress along the African shore, which, leaving colonies in Mauritania, now, it may be, mixed with Shelluh tribes, turned northward, marking its progress in Portugal by the usual monuments, and by the name of Portugal itself, as well as that of Gallicia (land of the Gallaici), where they came in contact with the Finns or Finno-Celts, from the north, whose progress we have already mentioned.

We now come to the march of the main body of the Celtæ, from their first departure, divided into two great columns, one directing its course to the northward of west, and the other appearing to have followed the southern flanks of the great mountain chain, through Armenia and Asia Minor, to Europe. It is this movement westward, of successive tribes of the family, which has commonly been designated as the Gomerian. Josephus first made this application to the race in question from the tenth chapter of Genesis. We may retain the name, without entering into the truth of the Jewish historian's derivation; particularly when restricting the meaning to the portion of this great stem which passed through Middle Asia; because the word may be construed to imply mountaineers in one set of cognate languages, and in another it may be derived,

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with little mutation, from Guomo, Homo, which was doubtless in use among the Pelasgians, a somewhat kindred nation, that passed and dwelt along the same line of migration.* It signifies merely man or men, the common appellation of a multitude of ancient tribes in Scythic dialects, or those which we take to be offspring of that common tongue of High Asia, the Sanscrit, before it became a polished vehicle of knowledge in the centre of the ancient world.

If the tribes which followed the most southern route, such, for example, as that by the Helmund, towards the region where Persepolis and Susa were afterwards built, had black eyes and curly hair, like every race that came in contact with the Ethiopian stem; those which followed the course more directly west, along the flank of the mountains, where their monuments are still visible, were more probably a blue-eyed people, with brown hair, and full muscular structure; nationally graziers (gwallah), and possessing that basis of traditions which they afterwards carried with them to Gaul and Britain. In a pure state, or already in commixture with tribes of Finnic origin, we find them in Armenia; tribes reckoned among the giant conquerors, penetrating into Syria and Arabia, and the main columns possessing Colchis and Asia Minor, where the rivers Sangarius and Gallus (Halys), with other remote Celtic denominations, attest that they once resided. If the Milesians have a true claim to Celtic consanguinity, they penetrated to the Borysthenes, and built Olbio, where the sturgeon fishery, corn husbandry, and weaving fine cloths from hemp, had formed a flourishing community in the time of Herodotus, or B. C. 460. But this date is several ages posterior to the first

* There are other derivations, or the same, reversing the meaning, as is constantly the case in cognate languages, such as the Celtic Combe, a valley, and Teutonic Kam, a crest; for in both we may have the radical meaning of Cumraeg, Cymbri, Cumbers, Cumbrians, Cambrians, Cambrivii, Cambresians, Kumbers, Kempers, Kempenners, Kennermers, Cimmerians, &c. See also Cuma, in many localities. — *Steph. Byzant*

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Celtic irruption across the Taurine Alps in Italy; since that event preceded the conquests of the Gauls, B. C. about 600, when they established themselves in the Cisalpine territory, an event which was said to be the consequence of over population already accumulated in Transalpine Gaul, and therefore at least many generations after their first arrival. Over population certainly could not well have been the true cause of expatriation; for several whole tribes of Belgæ, and the Allobrogi, had not yet relinquished the north of the Rhine and Danube. Now these denominations in Theotisk had only two meanings; Volke, as before said, denoting a people, in contradistinction to Geschlecht and Stam, which were applied to homogeneous clans or tribes; and Gela, Gaul, Gael, by the Celtic nations always understood to designate strangers, foreigners, because most probably they also were partly mixed tribes; the same originally as those who were known by the collective appellations of Belgæ, Centomanni, Celtomanni, &c., and only bore the general epithet of Gauls among the Celtæ properly so called. This appellation was pronounced by themselves and the Teutonic race, Wael, Welsh, Velsche, only a dialectical variation from Wilci (wolves). If the Gelas of the Caspian coast were of the same stem, we have a geographical indication that the Celto Scythic, or perhaps Celto Finnic tribes, extended so far towards the north-east as the Araxes; and though the Phrygian, Gallæ, the emasculated priesthood of the Syrian Goddess, renowned for circular dances and choral songs, may not have been Gallic by race, the presumption is, that they, or the institutions they observed, came from the banks of the above named Phrygian rivers, where the whole region was at one time Celtic. To that quarter a Gallic army from the west, having ravaged Greece, was, ages after, again invited, and there the forces, so far from wearing out in a short period, as armies invariably do on all other occasions, they multiplied to a nation, which was still flourishing at the commencement of the Christian era, under the name of Gala-

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tians. Though mutilation was not practised by the Western Celtæ who followed Druidical institutions, the vociferation of the many epithets of Hu, and the spinning dance "in graceful extravagance," according to Taliesin, was well known to them; they had even the ecstatic visions of the Syrian Galli, perhaps the very same as the Howling Dervishes, who repeat the ninety-nine perfections of Allah, and their brethren, the twirling fanatics of the mosque of Ayoub, who perform the like dances, and fall into similar fits of frenzy and exhaustion.

A multitude of other coincidences can be traced relating to the highest developed religious system of the Celtæ in Western Europe, the more perfect, probably, because, through Phœnician agency, the dogmas of Palestine and Syria had been carried westward rapidly, and more unbroken, by nautical colonists. No doubt an intercourse of consanguinity continued to exist between both, since the Galatians had returned eastward and established themselves a second time in a focus of their ancient possessions, where there were around them interminable denominations of places bestowed by their ancestors; and it is likely a proportion of the population still recognized them as relatives. The southern clans, having, in their most early communion with Indo-Arab neighbors, acquired that dialect which might be termed Celto Semitic, probably possessed the most recondite lore of Western Asia, reduced to a homogeneous system. It was that which abounded in Hebrew or Syriac terms: proceeding by sea, it carried the traditions and philosophy of the east to the coasts of Great Britain, destined to be set up first as indigenous; later, to accept numerous grafts from the same quarter, brought by Punic traders; and, finally, to prepare the west to accept the tidings of the Gospel without that resolute opposition which Greek and Roman civilization so long opposed to Christianity. The Celto Semitic race is still distinctly marked in Spain, Cornwall, and Wales, by a more spare make, black curly hair, very dark eyes, and brown complexions, frequently set off with

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bright red lips. It is a spirited race, gifted with the highest imaginative power, serious, thoughtful, religious, obstinate, attached to its own nationalities, and, though in many cases proved to have been a marine people, nowhere really fond of a sea life. Such are the true Cymraeg, the Siluri of Tacitus, abounding in Wales: in Cornwall they are ofttimes named Cadisians, from a legend that their ancestors came from the coast of Spain; and local names indicate the antique presence of Punic and Hebrew colonists and mining speculators, who understood the value of the Cornish ores so well, that, to the age of King Henry III., Jews still were the parties that farmed the right of stream working and mining from the crown. It is probable that the Hibernian Coomary, sea-dogs, or seals, likewise connected with legends of Gallican origin, and the so-called Milesians, belong to the same stock, notwithstanding that their remote ancestors may have resided on the northern shore of the Euxine, as before stated. The name may even be traced as far as Bactria, among the present Rajpoots, celebrated in the Rhamayana for their horses; and Khomen still reside at the Bay of Cambogia in Siam.

In Gaul the brown-haired tribes prevail, though dark-eyed families are exceedingly abundant, and the whole are intermixed with Finns, Alans, Goths, Burgundians, and Franks, who, nevertheless, though they were mostly nations of real horsemen, have never been enabled to make the Celtic people either in Italy, Gaul, or Catalonia, more than transitorily addicted to a cavalry life, or formidable for their squadrons, notwithstanding that the antique institution of the trimarchesia,* and the Gallic Alæ in the Roman service, seem to prove the contrary; at all times this species of renown was due only through the Belgic, Allemannic, and Frankish influ-

* Or three horsemen combined; Tri-march-cesec, a master and two attendants, according to Pausanias; but if there was but one horse and two foot soldiers, the institution was bad. We must allow that the Polish lancers and the Spahis were once formed upon this principle.

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ence in the national manners. The characteristic temperament was ever stimulated by momentary objects, unsteady, factious, often frivolous, always brave, witty, and improvident. This great stem of nations could never permanently arrest the steady progress of the Teutonic and Getic tribes, which gradually forced them westward, then mixed with them, became a privileged class of rulers, or adulterated the Celtic blood and language; such were the Gallic, the first and second Belgic tribes, the Centomanni, the Boii, the Allobroges, and lastly the Cymber or Friesonic, which were nearly pure Germans. The intermixture, in proportion as it increased, gave firmness, and those enduring qualities which finally arrested the pressure of the Getic races, and they resembled them in person and in language, as is proved by the Franks, the Sicambers and Frankonians, or east Franks on the German side of the Rhine, and by the Saxons and Northmen in the British Islands. After they had been subjugated by the Romans, the Danube and the Rhine were both wrested from them by these amalgamated tribes; they sank before the Vandals, the Goths, the Burgundians, the Franks, the Saxons, and the Northmen, in every quarter except the Highlands of Scotland and a portion of Ireland. These, with Wales, a small part of French Bretagne, and the Alpine Vaudois, are now the sole portions of the race which still retain the pride of their nationality, their ancient language, and their traditions.

That they all came from the east is perhaps sufficiently shown. We have pointed out the routes followed by the migratory columns, and their stations in Armenia and Western Asia; their early blending with Finnic or Ural-Altaic tribes, probably on the Caspian coast, constituting a portion of the Illyrian branch of Eastern Europe. They seem still to retain possession of a portion of territory on the Danube, under the name of Wallachians (for the claim of that people to an Italian or Roman origin is no other than that the Italians are denominated Velches by the Southern Allemannic and Sclavonic

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nations), though by that name they acknowledge themselves actually to belong to the Celtic family. They may be the Celtæ which Alexander found on the Ister, according to Arrian, and be the Triballi of Roman history. Further on we observed that wandering tribe, the Boii, in the present Bavaria the same which once occupied Bohemia, and left two colonie in Gaul, whereof one, seated at the Teste de Buch, near the mouth of the Garonne, had for hereditary Vergobret, romanized into Captal de Buch, Jean de Grailly, the last of the family, who was, in the reign of Edward III., the fifth Knight of the Garter, at the foundation of the order. This very title of Buch, their tribal name of Bougers, and their silent woodland manners, attest that they were not pure Celts, but, like other fair-haired Boii of the north, Belgæ or Semi-Germans.* Besides the possession of Bohemia, Celtic tribes long held Galicia in Spain; others, from the Tauric Chersonesus, passed up the rivers and swamps of Sarmatian Galicia and the Baltic, where they came in contact with Illyrian or Finnic Veneti. Passing over to Sweden and Norway, they built up the usual monuments of their presence, and left some portion of their dogmas to the first conquering Getæ; thence they edged down by the Cymbric Chersonesus, along the west coast of Germany, and began to force their way into Northern Gaul, at least one century before the Roman conquest. They dislodged the first Belgæ, who, not finding space for habitation on the Continent, formed the two well known irruptions into Britain. They extended themselves along the southern coast, reached the British Channel, and passed over to Ireland, where they formed the Firbolg tribes, who, at a later period, encountered the Finnic Celts in the northern portion of the island. Taking the Irish Firbolg to be descended from the

* In the letters of St. Paulinus, addressed to the poet Ausonius, there are some details of the manners of these Boii. At present they are collectors of rosin in the pine forests of that sandy region, and characteristically possess a breed of vigoro is feral horses.

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first Belgic branch (that which was expelled by the second Belgæ, who secured for themselves the sea-coast and the valley of the Rhine), we may regard them as the purest Celtæ now remaining. They still much resemble the Vaudois, the Illyrian Lombards, and the Walloon population, even more than that of Lower Brittany. The Irish are in form athletic, rather spare and wiry; the forehead is narrow, and the head itself is elongated; the nose and mouth large, and the cheek-bones high. The features are rather harsh; and in character they are fiery, brave, generous in their impulses, and very patient of fatigue. Intellectually considered, they are acute, witty, ingenious, but beset with the sense of drollery more than of the true and useful; they are deficient in sobriety of thought and breadth of understanding; they consequently want more excitement for action and enduring reflecting power than the Getic family of nations seems to require. The Finnic Celtæ were the first northern marine wanderers, who, having attained the Scottish and Irish coasts, constituted the Gael Coch, or red-haired strangers of Scandinavian origin, and first taught the pursuing Getæ —in part their kindred— to follow them to the south, under the name of Northmen and Ostmen.

The Cymbers were perhaps the last colony from the north that had consanguinity with the Celtæ; they broke into Gaul B. C. 108, penetrated to Spain, and, in alliance with Teutonic tribes, they were at length vanquished in the plains of Italy, after they had destroyed several consular armies.* In Britain, as already stated, there were a greater diversity of races than is commonly admitted, besides a nameless population of savages, probably Finnic, in possession of the coast when the Celtæ first landed. There were among these, and protected by the Hedui, the Veneti (Henyd) and Ligurians (Llogrwys),

* They routed, between B. C. 302 and 307, the armies of Papyrius, of Silanus, of Cassius Longinus, and of Cæpio and Mallius, who were loaded with the Celtic treasures of Tolosa, once plundered by the Gauls at Grecian Delphos.

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who, we have shown, had, through their Illyrian origin, likewise Finnic affinities; the purer Celtæ, such as the Morini and the nautical clans coming from the coast of Spain, and the Belgæ of Semi-Teutonic origin, such as the Cantii and others occupying the east coast of Britain. The intercommunication of knowledge and civilization among tribes, who, in different parts of Asia, Africa, and Europe, had been in contact with nations far more advanced in the arts of life, some perhaps, with little delay, passing west in their coracles the whole distance from the regions of Phœnicia and Carthage to Britain, brought dogmas, such as the religious and moral dicta of the Druids attest. They had, no doubt, possession of rudiments of literature and reminiscences of science, and, reaching a home rich in mines, not only became miners and metallurgists — as more than one line of their progenitors had been in the east and in Spain — but, stimulated by the example of the Etruscans in the arts of smelting ores, they must have accelerated the progress of development, which inroads of new hordes, the tendency to intestine factions and open war, too often, and, in the end, too fatally arrested.

This imprudent irritability of temperament caused the Celtic races, notwithstanding their military prowess, to be ever subdued and ruled by strangers, both in Asia and Eastern Europe, in Gaul and Britain. Without reference to the universally known facts in history, we may add one or two more not so commonly noticed. It was the Veneto-British fleet, defeated by Cæsar's navy, off the mouth of the Seine, which produced the Roman invasion.* The struggles between the Christian municipal towns of foreign colonists left by the Romans, and the Pagan Reguli of native race, brought in the Caledonians and then the Saxons. So, again, the force of 12,000 Britons under Prothamus (Pritham?), which crossed over to Gaul in

* It was more likely a fleet of Gallic and British Veneti united, who fought D. Brutus in Quiberon Bay, in order to recover Vannes, Blavet, and Hennebon, all Henyd, or Venetic towns.

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457 to support the Emperor (Marjoriam?), stripped the island of its trained defenders, at the time the great Saxon invasion was in progress;* and, lastly, we find the name of Sawel ben Uchel, with his supporters, probably Belgæ, taking part with the Saxons in the overthrow of their own race.

Language and religious doctrines were likewise different in the three great national divisions of the Celtæ. In the north, the name of Druids, or rather Drotne, was a title of civil authority, perhaps even more than religious; the Belgæ had no Druids, but Seghers, speakers (sacerdotes of Tacitus); nor was the order known in Cisalpine Gaul, nor in the Iberian possessions of the race. Druidism seems to have been evolved on the banks of the Loire, and acquired the higher doctrines in the mining districts of Britain, by intercourse with the Phœnician traders, until it was ready to accept a modified Christianity, like that Aurelius Ambrosius entertained, when he assumed the civil and military authority, with the office of chief Druid and that of Christian Bishop!

Though the French nation of the present time is in its vast majority of Celtic origin, there remain only the Bas Bretons who claim something of a pure descent. The Waldenses of the Alps are less distinct. The south-eastern Irish have a just claim to a Belgic origin, and the Cymraeg of Wales to a true southern Celtic parentage; while the Gael of the Scottish Highlands are probably Finnic Celts, who resided in Erin, till they were obliged to retire before the superior numbers of the Fir-bolg.†

*This expedition may have given rise to the fabulous wars of Arthur on the continent. Prothamus is mentioned by Jornandes, Freculphus, and Sigebert of Gembloux.

†It may be remarked here, that several Celtic terms are referred to Theotisk sources, because they belong to the Celto-Cymber and Belgic tribes, who, as Cæsar asserts, spoke a distinct language; and the romanized names of divinities prove to have been invariably of Teutonic, not Gallic origin, from the Rhine to beyond the Scheldt.

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THE GETÆ OR GOTHIC NATIONS.

At length we attain the concluding family of nations. It is that stem, which, though later in reaching the Western Ocean, and, like the rest of the tribes that peopled Europe, though compelled to forsake High Asia, and quit the east, was destined nevertheless to hold dominion in Chinese Tahtary, ages after the other Caucasian nations had been expelled or exterminated by the Mongoles. They likewise were early invaders of India, and are no doubt of the number of those which the Egyptian kings Remses and Thothmes, and the Assyrian Ninus, vainly endeavored permanently to subjugate, notwithstanding that they had the organized masses of great empires at their command, and the invaded mountaineers could not retreat towards the east. This stem of nations was, as it still is, the tall, fair, light, or red-haired portion of the Caucasian type, including the giant races of historical tradition. It ventured, in the remotest ages, in small clans, or by mere families, to penetrate far among the dark-haired nations, unsupported by numbers, and trusting solely to their fortitude and valor. The Mongolic, the Ural Altaic Finns, and the Indo Arab nations, have at all times acted by the weight of overwhelming numbers, therein differing from the fair-haired tribes of mixed and of pure Caucasians, whose cool energy and self-reliance not only takes little account of numbers, but actually is the cause of small sovereignties, and even permanent republics, remaining independent to this day. We have in more than one place pointed out families, and clans of this great stem, assuming the absolute mastery of swarthy and of dark-haired nations, or becoming in a collective form the nobility, the privileged class, wherever they resided. An element of this kind, either in part Finnic, or purely Getic, blended in the earliest population of Greece, probably before the formation of the kingdom of Argos, eighteen centuries before the Christian era. The Her-

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aclidæ were of the fair-haired stock, and so was Theseus, and indeed most of the demigod heroes of Greece; at least that opinion in tradition is equivalent to an admission of the fact that the northern race prevailed among the Hellenes before their historical era. They came from Thrace, from Asia Minor; and, in the quality of marine swarmers down the Euxine, occupied portions of the coast, or passed on to the Mediterranean, to the Adriatic, Gaul, and Spain, where the fabulous Gerion is again represented to have been a fair-haired giant.* All these legends have a singular alliance in consistent uniformity, reaching to Egypt, and going round and beyond the Mediterranean Sea. Under the names of Scythians and Tauranians, we find, in Asiatic history, that they were dreaded by all southern nations, even to a single individual coming amongst them. Kindred nations of this stem reached Europe without distinct accounts of their origin and progress; but the movements of others, at later periods, substantiated by Chinese writers, by Indian documents, and by Greek and Latin authors, who record their arrival in the west, attest that they all came from the same region, in Mongolia, Thibet, and the lakes of Central Asia. Being coerced by the pressure of the beardless stock behind, they forced a passage towards Europe through innumerable fields of slaughter, and swarmed during a period commencing probably twelve centuries B. C., perhaps when the great inland sea was already much contracted, and the rivers in their way were not yet so greatly absorbed in sand as they are now.

We observe, in fact, that already at the time of the first Celtic expansion in Gaul, when tribes of that race recrossed the

* In Asia Minor they appear to have constituted the Lydian, Pelasgian, and Carian nations; and Tyrhenian or Torubian, and Phœnician, further on, were probably more Finnic, but all allied, as is shown by Hesiod and Herodotus, in Lydian records; and Ovid, quoting a Naxian legend, where tribes are personified, the Tyrhenian theft of the god Bacchus, indicates that these pirate rovers carried the vine to Italy.

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Rhine, 600 years B. C., that Semi-Teutones or Getic tribes, such as the Boii, were among them, and that the movement was occasioned by fresh pressure of similar tribes coming down the north-west coast of Germany — tribes that could not be expatriated by any other than enemies of purer Getic race, who were themselves pressed by more of the same, further in the north-east. We have prominent, on the scene of action, the same names of nations, from the high lands of Mongolia to the German Ocean. They continue to roll onwards in waves, retaining their first appellations, till four centuries A. C. In Tahtar, and Chinese and European Chinese annals, they are distinguished by the names of Kinto Moey, Yuchi, and Yetæ, Getæ, Scythæ, Guti, Guttones, Jotun, Goths, Massagetæ, &c., until they become known by more tribal denominations, such as Gothi, Germani, Teutones, Xacas, Sacas, Sakya, Sacæ: at later periods we find Sueiones, Suevi, Burgundi; and at length they are followed by Sclavonic tribes, which always bear some impression of Ural Altaic consanguinity, notwithstanding that in part they are descended from Sacas, who, repulsed by Indian forces, fell back upon Persia, and brought with them Hindoo mythological notions, that extended among kindred nations, and reached Scandinavia.

According to Chinese annalists, when Foh appeared, B. C. 1027, Yuchi were already established in Bactria, along the Sihoon or Jaxartes river, and they had possessed, or still were masters of, the great basin around Lake Balkach; the first station west of the central mountain chain, provided that the Siberian region, in remote times called Geta or Yeta, be not still more ancient, and reveal the original meaning of Get, bright, corruscating, the same as Sibir, and our silver, which seems to be the Russian or Sclavonic translation of Yet.

The Chinese Yuchi, and more proper names of Yeta and Getæ, collectively taken, denoted the whole family of fair-haired tribes, including those which were foremost in the movement towards the west, and were partially intermixed

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with the Celtic tribes of the north, forming the Cymber or Cimmerian people before mentioned. Similar interunions affected the Gallic or fair-haired Gaul tribes; the Boii, the Volsci, the Britons of the east coast, the Vuinidi; the Wilci, northern or second Belgæ,* &c.; but it may be doubted whether the Allemanni, Allobrogi, Centomanni, Geremanni, Teutones, and Frisones, were of the same races, pure Getæ, or with perhaps some Finnic intermixture. That they were nearly allied, is evident from their tribal names, notwithstanding that the Romans confounded them with the Gauls, because, in the time of Marius, it was thought to be the greater honor to vanquish them, and they were encountered on the west side of the Rhine. In Britain, the former were the Gwyddel Coch, or Ywerdon, the red Gael of Ireland, probably the Dalriads noticed in the third century again, of the same nation as the yellow-haired Britons, taller than the Italian race, seen at Rome by Strabo, and still distinguished by the bard of Malcolm III., in 1057. These no doubt were the Celto Scythæ of earlier antiquity, little if at all to be divided from the Finnic Celts, but more distinct from the Getic tribes, who are often noticed in antiquity, as milk-eating and western Scythæ, residing between the Danube and the Tanais or Don, at the time the eastern Getæ, or Massagetæ, the Sakas and Sarmatæ, were on the plains northward of the Caspian, and along the Oxus and Jaxartes, up to High Asia, and the Yuchi (Yueichi) were still in the present Mongolia. This appears to have been that period when the great conflict of the typical races was at its height, in Northern Central Asia; for the Chinese were then building the Great Wall (B. C. 223) to exclude these valiant tribes from their southern states, and the Persian monarchs were equally anxious to prevent them penetrating to the south, since they also had raised

* The Esauites, or Italian Edomites of Gorio, who built Norba, Alba, and other Cyclopean cities in Lower Etruria and Latium, were a fair-haired race, most likely Etruscans, speaking an Oscan dialect.

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a great wall, or continuous lines of defence, from Bactria to the Caspian, a rampart like the Kizil Alan, most likely older than the accession of the Sassanian dynasty; since further west, the wall between the two seas, passing from Derbend (Porta portarum, Portæ Caspiæ) to the Euxine, appears also to be more ancient than historical record.

The Yuei-chi, the last Caucasian race that left the north central high land of Asia, being pressed by the Mongolians, or by Huns from the north-east (about 200 B. C.), were compelled to quit Chensi, and fell upon the Sai, or Sakas, who, retreating, divided into two great masses, whereof the first directed its course towards the west, and the other, not quite so numerous, fell back upon Southern Thibet, and thence came down upon the Greek Bactrian state (B. C. 90), then ruled by Mithridates. They had, at the same time, similar conflicts with the Parthians, whose king, Artaban, they slew. They gave an asylum to Sanotrokes, and restored him to power (B. C. 76). From Bactria they crossed the Paropamisus, and subdued another Greek sovereignty in Affghanistan, on the south side of the chain. Passing onwards, they formed a province of Scinde; but, in an attempt to penetrate further eastward, they were routed by Vikra-maditya, king of Avanti (B. C. 56). If not from an earlier invasion, it was, at the latest, in consequence of this defeat, that the recoiling Scythæ were supplied with the Hindoo religious elements, which some of the tribes, migrating westward, have evidently mixed up with Celtic and Finnic legends in the north of Europe. We do not, for example, find the Asii, here called Lazi, to have possessed the doctrines recorded in the Edda. When, according to the Chinèse annals, they were opposing the Tatzin or the Romans, in their endeavors to open a trade with China, for which purpose, being hindered on land, they sent an ambassador by sea to the Celestial Empire, in the reign of a sovereign denominated "Anton," *i. e.*, Marcus Aurelius Antoninus. While they were still residing on the Caspian, and when the

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began to form a strong community on the banks of the Borysthenes, Thorgitaus, their chief divinity, is not represented with characters suited to the high northern latitude, where Thor and Woden are afterwards made to operate in a manner congenial with the climate. If the city Asgard, once existing near Azof, at the mouth of the Don, was the representative of the first abode commemorated in the north, then the Asii possessed at that point an intermediate resting-place, so that from their first known station within the high table land of Asia, above the southern sources of the Jaxartes, they moved gradually to the south through Sogdiana, across the Paropamisus, and then westward, to the three stations already indicated, before they or a clan of this people again returned to the north, probably by ascending the Borysthenes, and halting some time about the lake of Ladoga, made that water a sacred centre, until they migrated to Scandinavia.

The Getæ, found by Ovid occupying the west coast of the Euxine, were then already a century in moving onwards towards the north-west of Europe, taking again the great rivers of the present Poland to reach the Baltic. With the Thuringians and Saxons, or Sacasunen, among them, they forced their way to the German Ocean, dislodging the Cymbers, excepting remnants that clung to the swamps, and the then submerging islands of the deltas formed by the great rivers which discharge their waters into the German Ocean. They were most likely the subsequent Friesen and Sicambers, or Water Cymbers, who, with other tribes of so-called Germani, formed the posterior offensive confederacy of the Franks (Freye-Anke); among these the clan of Merovingians (Meervingen), notwithstanding that the site they inhabited is pointed out to have been on the Merwe in Holland, seems nevertheless to indicate a clan of sea-rovers, whose first intelligible historical chief, Pharamund (Vaaremund), or commander of the navigation, had performed some great exploit in the then fresh career of distant marine expeditions, such as

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that of plundering and ravaging the coasts of Africa and Spain. They and their chief may perhaps refer to the remarkable escape of the Frankish exiled prisoners, who, in A. D. 280, seized upon shipping on the coasts of the Euxine, and forced their way homeward, plundering Syracuse and the coasts of Gaul and Spain, until they reached the mouth of the Rhine in safety, and loaded with booty. This event may be the basis of the mystical legend of the Bristly Bull monster, which rose out of the sea, and became the parent of the Borstigen, Meringauen, or Meeringen; for it explains how a daring, rich, and victorious body of Celto Scythæ and Finni of the west, being moulded into one united companionship by misfortune and by success, replete with the experience of their adventurous achievement, and possessed of captive wives and slaves from highly civilized nations, should have grasped power at home, and given that settled purpose of conquest to these restless tribes, which, until then, had been only known as the mere maraudings of pirates.

By the departure of the Franks eastward and across the Rhine, and of the Saxons and Angles to Britain, room was made for other tribes, who either wanted space on the spot, or were daily pressing onwards through the swamps and forests of Poland and Russia. We shall not relate the great influx of them before and with the Huns, and of numerous Finnic and Getic nations from the east, among which the eastern and western Goths were the most conspicuous. Like several others, they had struck upon the shores of the southern Baltic, and then found they must turn to the south. They or similar migratory bands compelled Alans, Vandals, Burgundians, &c., to precede or to follow them, and to produce that remarkable cross migration from north to south, which caused the intimate mixture of the fair and dark-haired races in middle and southern Europe, and in the end effected that thorough civilization of the whole, on principles of progression, continuing to

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develop science with daily increasing rapidity, and tending shortly to embrace the whole earth.

Though many of the parent races of nations now remaining were without letters, or were possessed of valuable elements of knowledge in a very circumscribed degree, there existed among them all, at a period much earlier than is often allowed, a method of embodying (it is true, commonly under symbolical expressions) records of national belief, manners, and events, which give occasional light, sufficient to rectify the scanty data of the later classical writers, and the documents contained in the acts of the earlier ages of Christianity. These most ancient national legends are poems, in various forms, and often in some part religious. They are reports, such as Virgil knew, and interwove in his Æneid, concerning the tribes of Latium, and Strabo asserts were possessed by the Iberians. They were recitals committed to memory, like the Homeric poems, preserved from one generation to another by repetition, with an exactness, all things considered, wonderfully permanent. Thus the Gael of the Scottish Highlands, and northern Irish, have recorded the poems of Ossian, now thoroughly proved to be genuine. Such are the thirty cantos of the Finnic Kalewalla, lately brought to light, the numerous Scandinavian Sagas, and the two Eddas. Even the British Celtic legends of Arthur, the Mabinogion, and the poems of Taliesin and Aneurim, have now likewise established their degree of authenticity, as well as the first part of the Arabic Antar. Among the Teutonic tribes, the staves of the Gehugende, according to Jahn, marked on wood, in Runic letters, contained the tribal reminiscences, whence the earliest monkish annalists have drawn a great part of their first historical materials. The Heldenbuch, and Niebelungen-noth, were most likely preserved by their help. The last mentioned may, however be of Franco-Theotisk origin, since four or six pages, in the Flemish language, of the twelfth century, have been lately discovered at Ghent.

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It is to be regretted that many stores of early information have been neglected. The list of classical (Greek and Latin, writers which have perished since the thirteenth century is sufficiently extensive. That of indigenous chronicles, annals, and legends, especially in the north of Europe, since the same period, is even more considerable. Some few may yet remain unknown; and though the general history of events may not be greatly impaired, we still have to deplore the loss of much that concerns the nationality, the manners, opinions, and traditions of our remoter ancestors, which, after all, are quite as valuable, nay, even more so, than the commemoration of crime and barbarity which has been preserved. Of the class we mean, there are still a few remaining, which, although they be distorted by ill-directed zeal, by imposture, and by ignorance, furnish curious hints in their way. Such, for example, is the song of the Lombards, also known as that of the Ost and West Friesen or Frisons, found by Mr. Bonstetten, at Copenhagen. In the Land-urbar, or Costumier of the Bernese Swiss, there is likewise a legendary record of the fair-haired tribes of Ober-Hasli, Schwytz, Gessenay, and Bellegarde, printed as early as 1507, by Etterlin, in the chronicles of Lucerne. The Song of Hasli, of about one hundred and eighty stanzas, relates the migration of these clans, their battles, and their arrival near the Brochenberg, where they built Schwytz; and, it appears, they fought in the cause of Arcadius and Honorius, about the year 387.

Here we terminate this inquiry into the origin and filiation of the races of Man, — a subject, zoölogically viewed, we thought more novel, than to repeat what has already been said by other writers, and especially by Dr. Prichard, with his accustomed industry and learning.

As for us, we are compelled, for want of space, to abstain from entering into many important particulars, which would be

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more necessary for the elucidation of the general theory now advanced, if readers were not now very commonly well informed on most of the points brought here under consideration. Want of space compelled us, from the beginning, to mass our superabundant materials into groups, which on many occasions may appear too much generalized, and on others marked with repetitions, which sometimes we thought requisite to refresh the memory of the reader. The basis of the questions chiefly investigated was laid in a series of lectures on the same subject, read to the Plymouth Institution, between the years 1832 and 1837. The materials were exclusively sought for in scientific researches and profane history; and the successive discoveries and conclusions of other writers since that period, have, in general, strongly supported the main points of our own convictions, to which we attach no further personal importance than what continued research will disprove, or in due time assent to, when the basis of several conclusions offered in these pages will have acquired more ample notoriety and consequent solidity.

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APPENDIX.

It was intended, when the foregoing work was first in progress, to have thrown into an Appendix such additional observations as might be thought important, or that had escaped notice in their proper places, and to add to them the discoveries which might have become known during the progress of publication; but finding the text already greatly to exceed the usual limits of the single volume allowed for the discussion of the questions we have had to consider, the objects to have come under notice were reluctantly abandoned, or confined to the smallest space.

Thus, on the article Indus, pp. 107—111, recent discoveries of more than one ancient bed of the river have been made considerably further to the eastward than what were known, and the conjectures respecting the original course of the river to the sea, in the Gulf of Cutch, are strengthened.

Respecting the abrasion of the west coast of India, pp. 109, 110, might be mentioned Calicut, the capital city at the time of the Portuguese conquest, but now sunk beneath the sea.

With regard to the various levels between the Caspian Sea, the uplands of Russia, and Poland, pp. 120—124, we may remark, that the fall of the rivers opening in the Volga is 110 feet, those that are affluents to the Neva fall 445 feet, making a total of 555 ; now, adding this total to the surface of the Caspian, there appears to be only 200 feet remaining for the culminating ground at the sources of the Volga ; but if these are estimated on

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measurement based in error, and we make the elevation to be about 700 feet at the highlands of Vologda, still taking the lowest level between the Euxine and the Baltic to be in a line of latitude 58, the waters of the two were of no dissimilar height, while the Gulf of Bothnia was still an open strait, and the northern portion of the Old Continent had not as yet commenced rising. It appears that Norwegian Lapland has risen 1800 feet in the last 1200 years.

At page 129, *note*, we should have added that even the byssus of the pinna was not destroyed.

Pages 142–3. The volcanic disturbances of the Red Sea were again in operation in the last or in the present year (1847), when a new island rose above the surface in the southern portion. The French survey, for a canal between Suez and Lake Mensaleh, recently published, likewise countenances the opinion that the Isthmus was originally open.

Page 151. Among others, is the tale of Moshup, the giant spirit, who resided at Nop, now Martha's Vineyard, at a time when the currents ran differently, and ice used to pack about Nantucket shoals. But better evidence is found in the researches of Mr. Lyell, who considers the south-eastern portion of the United States, about Savannah, to be subsiding, while Canada, and latterly Nova Scotia, are shown to be rising, probably in the same ratio as the Arctic regions on the Old Continent.

Page 155. The human bones first discovered in England were in fissures of lime rock: they went to mend the highway, and no investigation by competent persons took place until long after. A similar fate attended the discovery of a completely fossilized human body at Gibraltar, in 1748. The fact is related in a manuscript note, inserted in a copy of the dissertation on the antiquity of the earth, by the Rev. James Douglass, read at the Royal Society, May 12, 1785. The volume belonged to the late Rev. Vyvyan Arundel, while he was still at Exeter College, Oxford, and the note, signed J. W., is written on paper, by the water-mark indicating about the year 1790. In substance it relates that while the writer was himself at Gibraltar, some miners employed to blow up rocks, for the purpose of raising batteries, about fifty feet above the level of the sea, on

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the higher ground, near the Old Mole, discovered an appearance of a human body, which — impatient because the officer to whom notice was sent of the object did not come to witness it — they blew up. It was reported to have been eight feet and a half long. Several of the pieces were taken up, and among them part of a thigh bone, "with flesh, and I thought an appearance of veins, all in a state of perfect petrifaction, as hard as marble itself; and in the solid part of the same stone a sea shell." It is evident, that if this body was fossilized by the infusion of stalactite matter, it must still have been of most remote antiquity.

Pages 156—161. We refer to Mr. Lyell's account of the human remains brought from South America, where, among others, he notices a skull, taken from among a great number of other remains, out of a sandstone rock, now overgrown with very large trees, in the vicinity of Santas, in Brazil. He avows an opinion that the locality may have been an Indian burying-ground, which subsequently sank beneath the level of the sea, and then was hove up again. Now, if this theory be admitted, and it is coupled with the growth of large trees above the deposit, to what period can it be assigned, when we reflect, that the bones of pachyderms, and of a species of extinct horse, both confessedly found in alluvial, must be of a more recent period?

Page 419. With regard to the Slavi, which might have been noticed as the last migrating nation that came from the East to Europe, they were omitted, because no detail could be given even of the little that is known of them. In structure and intellectual capacity they are so like their immediate predecessors, the Goths, that no other sensible difference is observable between them, than that they have even a still greater predominance of Sanscrit roots in their language, and that there are other evidences which lead to a presumption of their route westward having been in part to the south of the Caspian. An instance of the highest intellectual development, in the frontal form of the head, is given in the Plates.

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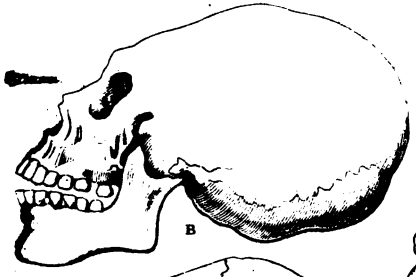

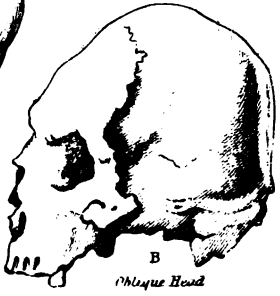

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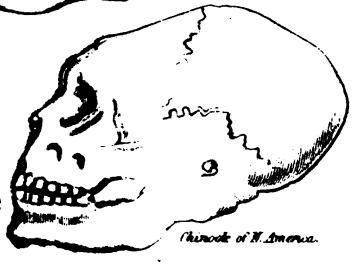

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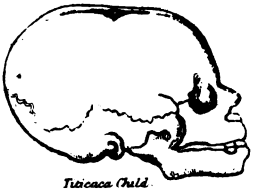

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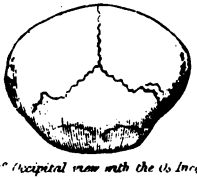

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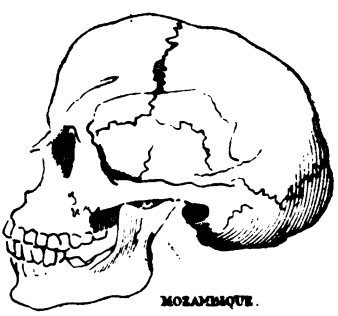

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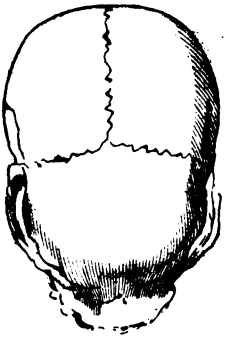

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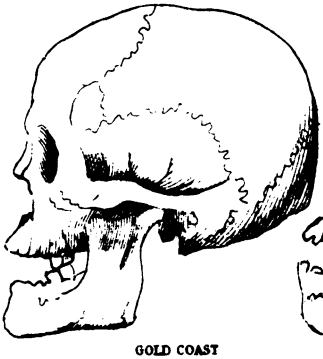

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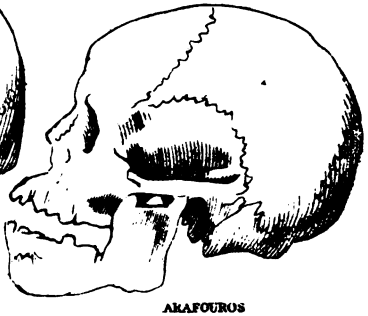

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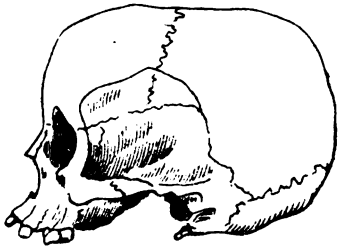

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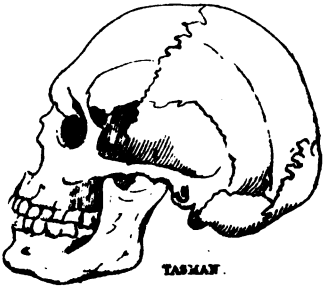

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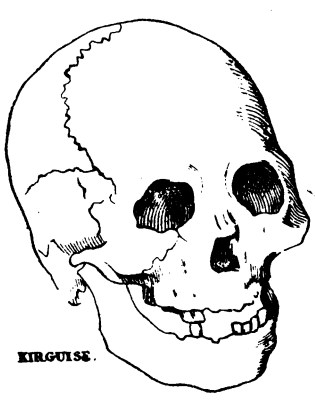

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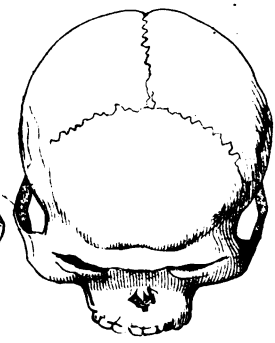

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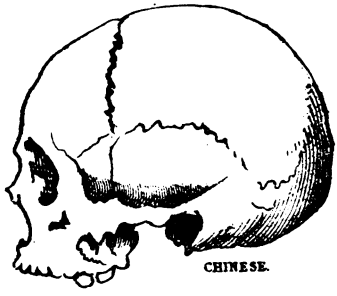

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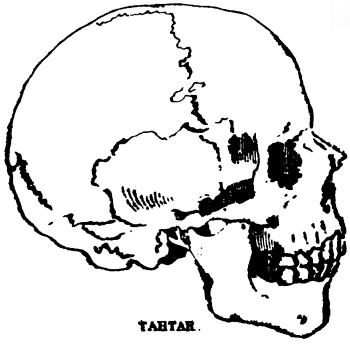

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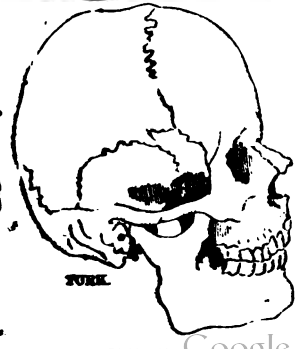

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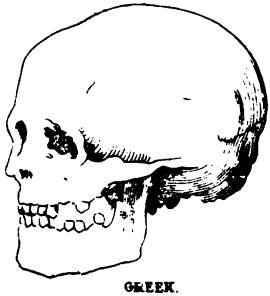

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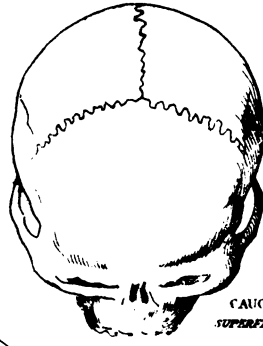

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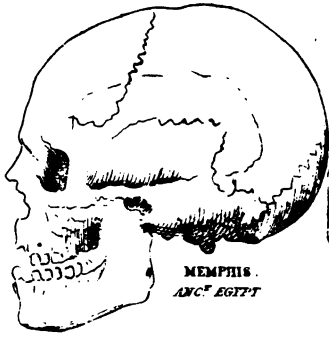

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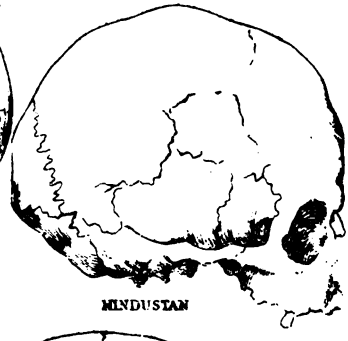

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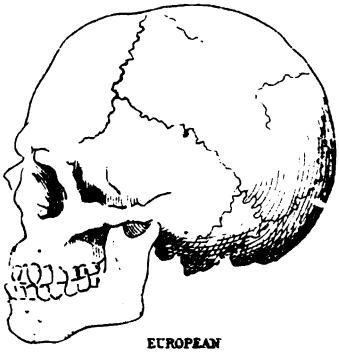

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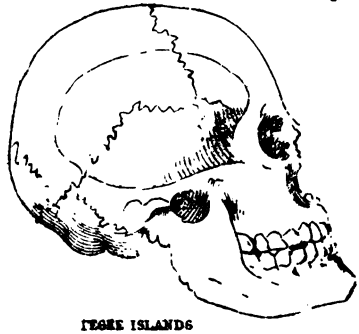

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